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ABSTRACT

This document introduces science center educators to a new partnership model based on lessons learned during a 3-year national pilot project to support collaboration between six urban science centers and over 30 community-based after-school programs. The collaboration tested and refined an innovative curriculum challenging children to build working models of small functional machines and toys and to practice crucial elements of the design process: experimentation, problem solving, and teamwork. The document is presented in three sections. Section 1 focuses on the potential benefits of science center and after-school program collaboration, provides a rationale for collaboration, and describes the "Design It! Engineering in After School Programs" pilot project. Section 2 provides guidance in launching a collaborative project and includes information on locating funding sources and recruiting collaborative partners. Section 3 addresses five challenges of designing partnerships, describing specific tasks and providing resources for each challenge: (1) spreading the idea to potential partners; (2) assembling the team of partners; (3) building a relationship with the partners; (4) providing guidance through training; and (5) driving the project forward with the partners. The document's three appendices provide profiles of the Design It! project partners, contain tools used in developing and implementing the curriculum, and include a Web site directory. (KB)

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Designing PARTNERSHIPS

Between Science Centers and After-School Programs

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2B

Lessons from *Design It! Engineering in After School Programs*

Prepared for Education Development Center, Inc. (EDC)
by the National Institute on Out-of-School Time (NIOST)

In Partnership with:
Baltimore Museum of Industry, The Children's Museum of Boston, Science Center of Eastern Connecticut, Science Museum of Minnesota, Pittsburgh Children's Museum, St. Louis Science Center

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Designing Partnerships

A successful partnership is one in which all partners share ideas freely and is fostered by people who aren't afraid to try new things and head in a new direction.

Staff, The Children's Museum of Boston

Designing Partnerships between Science Centers and After-School Programs introduces science center educators to a new partnership model based on lessons learned during the national *Design It! Engineering in After School Programs* pilot project.

These guidelines and suggestions—addressed to science centers that are beginning to collaborate with community-based after-school programs, and those striving to enhance their services to these programs—represent an effort to share resources and to inspire new ideas and strategies.

The following acronyms and terms are used throughout this manual:

ASTC	Association of Science and Technology Centers
CBO	community-based organization
CRP	community resource person
Design Technology	A distinctive process with a number of defining characteristics: it is purposeful, based on certain requirements, systematic, iterative, and creative; and it allows for many possible solutions. These fundamental attributes are central to the design and development of any product or system, from flint knives to computer chips. *(Standards for Technological Literacy*, International Technology Education Association, 2000, p. 91)
EDC	Education Development Center, Inc.
NIOST	National Institute on Out-of-School Time
NSACA	National School-Age Care Alliance
NSF	National Science Foundation
School-Age Care (SAC)	The field and daily practice of care and programs for children ages 5 through 14 during their out-of-school time.
SMET	science, mathematics, engineering and technology
21stCCLC	21st Century Community Learning Centers
YouthALIVE!	A hands-on enrichment and work-based learning program administered nationally by the Association of Science Technology Centers (ASTC) that offers young people the chance to "learn and set goals, analyze options, and conquer the obstacles that stand between them and the goals they have set."

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Connecting Science Centers and After-School Programs

After-school programs have become many children's "new neighborhood." Each afternoon, more and more children routinely head for an after-school program held at their school, a YMCA, a Boys & Girls Club, a church or synagogue, or a community center. After-school programs' growing role in shaping the skills and interests of school-age children, makes them natural partners for science center educators who want to:

- Promote science literacy.
- Support informal learning.
- Connect more children to science center resources.

Science centers can meet these goals by working with after-school programs that offer a flexible learning environment, time, and opportunities to engage in hands-on activities, and a social context that encourages collaboration among children, family members, and staff.

What After-School Programs Offer

What children find at their after-school program is a blend of homework help, recreation, and enrichment activities. The mission of each program will determine which activities are emphasized. The activities vying for children's attention include:

- Recreation and sports
- Help with homework and tutoring
- Literacy and reading enrichment
- Math
- Computers and technology instruction

A good after-school program is more than just a place dedicated to enrichment and learning. It is a place for finding friends and acceptance, a place where competence and confidence is built, and a place where children's dreams are developed and nurtured. Science centers that support such youthful transformations not only benefit from the positive energy of young people, but also achieve an enhanced role in their communities and nurture a citizenry that values the presence of informal learning institutions.

DeAnna Banks Beane, *Dimensions*, November/December 2000

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Out-of-school time presents a powerful opportunity for children to:

- discover new interests.
- expand their knowledge of science and engineering.
- build their confidence and social skills.
- enjoy the help of capable and caring adults.
- develop skills necessary for success in academic settings.

- Art, music, drama, and dance
- Conflict resolution
- Development of leadership skills
- Community service and citizenship
- Accommodations for bilingual students
- Health and wellness education
- Guidance and counseling services
- Programs for the gifted and talented
- Special education programs

For many children, an after-school program is chiefly a safe haven that fosters constructive relationships with adults. But to capture children's interest, after-school programs need knowledgeable staff and a dynamic curriculum.

What Science Centers Offer

Many science centers welcome after-school programs' participation. They routinely respond to requests to:

- Arrange field trips.
- Rent curriculum kits.
- Provide resource materials.
- Participate in community events.
- Present on-site activities at after-school programs.

Unfortunately, too many after-school programs are unaware of or unable to afford these services. And after-school program staff often need training and support to use these resources effectively.

Some science centers also operate on-site after-school, weekend, and vacation and summer-camp programs to provide children in-depth science activities. Children who enroll meet "real-life" scientists and engineers who may serve as role models. But only a few children enjoy these opportunities. Unless such programs are well-subsidized, many children who could benefit are unlikely to participate. If science centers are to reach more children more regularly with engaging, hands-on science and engineering activities, a new strategy is needed. One approach is to build the capacity of community-based after-school programs. With training and support, after-school staff can learn how to deliver science and engineering activities at their sites on a regular schedule. Science center educators can thus reach out to many more children, by designing partnerships with the adults who work with children.

Reasons to Connect

Science centers that familiarize themselves with after-school programs in their communities often find that these programs are attractive candidates for collaborative partnerships. Each organization brings potential strengths to the partnership that can magnify joint resources and promote new approaches to serving more children and families. Acknowledging each other's strengths, knowledge, and resources is essential to building an effective partnership.

Strengths that Each Brings to the Partnership

After-school programs provide services to children ages 5 to 14 who attend these programs regularly during the school year—at least two hours per day, for two (but typically five) days per week—and for full-days during vacations and summers. Program staff contribute familiarity with individual children, programming skills, and connections to the children's families.

Science center educators provide curriculum ideas and materials that are rare at after-school programs. Drawing on their experience and knowledge of children's informal learning, science center educators can provide training and technical assistance on facilitating these activities. They also offer easy access to the science center for field trips, family visits, workshops, and special events.

Potential Benefits of a Partnership

For after-school programs, a partnership offers an innovative curriculum that can spark the interest of adults and children who are traditionally underrepresented in science, engineering, math, and technology. Alongside science and engineering activities, the curriculum also focuses on team-building, communication, organization of information, problem solving, and socialization—skills that are critical to all kinds of learning and social growth. For the after-school staff, opportunities for ongoing professional development can build confidence about providing hands-on learning in general, and science and engineering projects in particular. A partnership can also promote awareness on the part of staff and families that science and engineering matter in the lives of children.

For a science center, a partnership can serve as a vehicle for feedback about the relevance of its resources and services. Such feedback can help make future programming and exhibits more relevant to children and families and can clarify the science center's educational mission and its place in a larger community-wide picture. Collaboration with after-school programs increases the science center staff's professional knowledge, skills,

In a successful partnership every partner feels comfortable enough to ask for support and expertise, and feels that the collaboration is valuable.

Staff, St. Louis Science Center

The museum staff continues to learn and grow through the DESIGN It! program. This program has enabled us to work closely with community agencies' staff to learn firsthand the challenges they face. This knowledge will enable us to further grow our own program offerings for this particular audience. The teaching approach, the quality of curriculum materials, and the shared wisdom of the participants have all added immeasurably to our body of knowledge.

Staff, The Pittsburgh Children's Museum

and awareness of everyday issues of after-school care such as space, storage, scheduling, administrative buy-in, group dynamics, and parent involvement. Finally, it allows science centers to broaden their community outreach efforts through a "multiplier effect." Training the after-school program staff to become trainers of their own staff rapidly increases the number of adults who can provide science and engineering activities to children during their out-of-school time.

For both partners, learning the skills required to build a successful collaboration may also be useful in establishing and maintaining future partnerships. As the partnership matures, the after-school program and the science center may recruit new partners and plan additional programs and opportunities for children. A science center/after-school program partnership may increase both organizations' attractiveness to children, families, and funders.

Characteristics and Outcomes of Informal Science Education
Informal Science supports projects in which learning is voluntary, self-directed, life-long, and motivated mainly by intrinsic interests, curiosity, exploration, manipulation, fantasy, task completion, and social interaction.

Informal learning can be linear or non-linear, and is often self-paced and visual- or object-oriented. It provides an experiential base and motivation for further activity and learning. The outcomes of an informal learning experience in science, mathematics, engineering and technology (SMET) include a better understanding of concepts, topics, processes, and thinking in scientific and technical disciplines, as well as increased knowledge about career opportunities in these fields.

Informal Science Education Program (ISF) of the National Science Foundation (NSF)
www.erh.nsf.gov

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DESIGN IT! Partners

The six science centers that participated in the *Design It! Engineering in After School Programs* pilot project represented the diversity of the field. Some are large institutions with years of experience at reaching out to their communities. Others focus specifically on design technology and have little experience in collaborating with community-based organizations.

These science centers participated in the *Design It!* pilot project:

- The Children's Museum (Boston)
- Science Center of Eastern Connecticut (New London)
- Baltimore Museum of Industry
- St. Louis Science Center
- Science Museum of Minnesota (St. Paul)
- Pittsburgh Children's Museum

Each science center worked with five community-based after-school programs. Together they tested, implemented, and refined the *Design It!* curriculum with children aged 5 to 10 during this three-year project funded by the National Science Foundation (NSF).

The *Design It! Engineering in After School Programs* Pilot Project

In 1999, the National Science Foundation (NSF) funded a three-year pilot project to support collaboration between six urban science centers and over thirty community-based after-school programs.

The Design It! Curriculum

Working together, the *Design It!* collaborative partners tested and refined an innovative curriculum by the Center for Science Education at Education Development Center, Inc. (EDC), of Newton, Mass. The curriculum consists of a series of design projects that challenge children to build working models of small functional machines and toys. Each design project presents children with problems to solve using simple, inexpensive everyday materials. In the balls-and-tracks project, for example, children create racetracks with elaborate shapes, such as loops and ski jumps, using pipe insulation and marbles. To build long-spinning tops and yo-yos, children use paper plates, pencils, and binder clips.

It's not a science program, it's design engineering, but a number of science questions do come up, just as some formal science curricula use design concepts. Ours is similar to an inquiry approach: the kids design their own projects, think about them, and ask questions about them. We want to give students the chance to experiment in the context of a real life project.

Bernie Zubrowski, EDC, *Design It!* Curriculum Developer

See Appendix B for more information about the *Design It!* curriculum.

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An innovative and profoundly significant component of the DESIGN It! project was the professional development of after-school program staff. Through monthly workshops and program visits from science center educators, after-school program staff developed the skills and expertise to offer design technology activities within their existing programs, thereby ensuring the continuity of the science work as well as enhancing their own professional standing.

More extended projects involved the design and construction of pinball machines, rubber band powered cars, flashlights, and paper bridges. These activities offered children concrete opportunities to practice crucial elements of the design process: experimentation, problem solving, and teamwork.

The Design It! Collaboration

In the *Design It!* pilot project six science centers, and over thirty community-based organizations that offer after-school programs, pooled their knowledge about science and engineering, community concerns, and organizational resources to implement a new engineering curriculum in an after-school setting.

The partnership model fostered opportunities to:

- Craft new connections between science centers and after-school programs.
- Increase the knowledge, skills, and confidence of after-school program staff.
- Expose more children to science and engineering during a regularly scheduled and extended time.
- Build awareness that science and engineering can matter in the lives of children.
- Encourage after-school programs to continue to offer hands-on science and engineering.

For each science center, the National Institute on Out-of School Time (NIOST) recruited a community resource person (CRP) to assist with on-site technical assistance and support for program improvement. The CRPs were all directors of after-school programs, knowledgeable about after-school programming issues and community resources.

The *Design It!* partnership model promoted programming that will grow with the children. Ideally, as children outgrow the after-school program, a rich array of experiences will await them at the science center. For some children, opportunities to participate in additional science programs, internships, and part-time jobs can fuel lifelong interests and possible careers in science and engineering.

What Works in After-School Programs

For over 20 years, the National Institute on Out-of-School Time (NIOST) has worked with all types of after-school programs to enrich and improve the activities they provide for children. NIOST has learned from experience that implementing an effective curriculum in after-school programs requires:

- A well-designed, carefully planned curriculum based on theories of how children learn in informal settings.
- Access to community resources and institutions such as funders, public schools, science centers, museums, public libraries, colleges and universities for financial and other support.
- Staff training on both the content and delivery of the curriculum.
- Buy-in from the director, entire staff, parents, and other stakeholders.
- Technical assistance to address programmatic issues such as space, scheduling, and storage.

Design It! Engineering in After School Programs meets all these requirements.

Resources

To learn more about out-of-school time, after-school programs, and informal science education and the *Design It! Engineering in After School Programs* curriculum, consult the following resources:

Education Development Center, Inc. (EDC)
(www.edc.org)

Center for Science Education (CSE)
(www.edc.org/cse)

National Institute on Out-of-School Time (NIOST)
(www.niost.org)

The DESIGN IT! program attempts to provide an engaging series of activities that offer a context for children to develop basic skills, general problem-solving strategies, and social development, which is applicable to their performance in school as well as their later involvement in the working world. These same projects still fit with the traditional practices of after school programming where children can play and explore in an informal manner.

Implementation Guide for Design It! Projects, page 5.

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SECTION TWO

Our goals for the museum are to increase its visibility, to reach kids in our target community, and to present the museum as a resource for community centers' after-school programs

Staff, The Children's Museum of Boston

Getting Ready to Connect

The process of launching, managing, and sustaining a partnership between a science center and after-school programs is fundamentally the same whether the project involves design engineering, hands-on science, or other science-related curricula. But because the needs and resources of each community are unique, each partnership must develop its own plan and focus. From the ideas and examples that follow, feel free to select those that are best suited to your project, available resources, cultural environment, and community.

Launching the Project

Launching a new partnership project requires prodigious behind-the-scenes work at the science center. Management must buy in to the value of the proposed project. Grant proposals need to be conceived, written, submitted, and accepted. Institutional agreements and approvals need to be in place. The education department needs support from other departments, a workable budget, and enough staff before beginning a project with community-based organizations.

Thoroughly addressing these administrative tasks helps a science center educator to

- Investigate the need for a project.
- Clarify the project's vision and goals.
- Ensure the buy-in of science center management and staff.
- Comply with applicable policies and procedures of the science center.
- Identify needed resources.

Science Center Funding Sources

Promising approaches to generating financial resources include the following:

- **Share resources** with other science center departments or programs in order to spread costs.
- **Demonstrate** that this project aligns with the science center's overall mission and is worth incorporating into its ongoing programming and community-outreach efforts.
- **Apply for federal grants**, such as the National Science Foundation and GEAR-Up, and grants from local community foundations. Be sure to take into account the time and grant-writing skills needed to develop a successful proposal.
- **Tap into personnel resources** throughout the science center. Take advantage of volunteers, interns, and college work-study students.
- **Solicit in-kind support** for goods and services that the science center would otherwise have to purchase, such as curriculum supplies.
- **Consider a fundraising event** with products, services, or activities that will inspire donors to contribute money to this specific project.
- **Pursue funding** from organizations or businesses that might take an interest in your project.
- **Develop a fee-for-service structure** for the after-school programs that access your training and curriculum materials. A sliding scale will guarantee access to those with little money but a definite need for the services.

- Locate a meeting space and storage for training supplies.
- Establish a timeline and schedule for project events.

This internal planning process will help you to assess available resources such as time, money, staff, and facilities, and to pinpoint constraints you might encounter.

A successful partnership is one in which all parties are satisfied with the working relationship. There is open communication and a sense of trust and respect for one another, personally and institutionally.

Staff, Pittsburgh Children's Museum

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Our goals for the museum are to continue building our relationships with community-based organizations and to meet our mission of stimulating interest in technology in a fun and exciting way. Our goals for the museum staff are to develop relationships with program leaders at community organizations, to learn a new model of teaching, and to become familiar with the grant process and to network with other professionals in the field.

Staff, St. Louis Science Center

During this planning phase, there are several tasks for you to complete.

1 *Define the project from the perspective of the science center.*

- **Set concrete goals.** The *Design It!* project had goals for both developing the partnership and training after-school staff to implement the curriculum.
- **Build on existing programs at the science center.** One *Design It!* science center recruited teen participants in the YouthALIVE! program to assist after-school programs and help with *Design It!* family events.
- **Think "out of the box."** As a starting point, survey current services and explore how to offer these services more effectively or creatively, or to new audiences.
- **Contact colleagues** from other science centers that already have partnerships with after-school programs.
- **Gather input from the community.** Identify services that after-school programs currently access at the science center. Ask after-school directors you meet at community meetings how the science center can help with their programming needs.

2 *Gather internal resources.*

- **Get prior approval** at the institutional level for the use of the science center facility.
- **Look for hidden costs.** One *Design It!* science center had not calculated all the costs of holding special events on site. As the event date drew near, the science center educator had to negotiate with another department to lower its fee. This conflict delayed the mailing of invitations, resulting in disappointingly low attendance.
- **Anticipate staff turnover** at both the science center and the after-school programs. At several *Design It!* science centers, the staff who initiated the three-year project were not those who actually implemented it. Their replacements needed time to understand the goals of the project and to get acquainted with the community partners.
- **Schedule training** to familiarize your staff with the project before initiating the partnership with the after-school programs.
- **Document the steps and contacts** as you proceed in order to alleviate the need to reinvent the process when new staff members join the project.
- **Work with your public-relations department** to publicize the project. At one science center, a local cable station televised a segment featuring children engaged in *Design It!* activities. This broadcast promoted awareness of the efforts of the science center and after-school programs to bring science and engineering into children's lives.
- **Acknowledge the science center's existing organizational structure** and the need for staff dedicated to the partnership project. Consider

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appointing a liaison or community coordinator to market the project both internally and to the community. The community coordinator's job description should specify decision-making and other responsibilities. Insure that the education department's manager is also communicating regularly with other department heads and is willing to intercede for the coordinator as needed.

3 Aim for success.

- **Adopt a definition of success** based on the project goals. As you make connections, be sensitive to what the after-school programs hope to accomplish. Jointly, agree on a set of outcomes that are attainable and appropriate.
- **Reflect often on the project's progress** and make adjustments along the way.
- **Be realistic about what you can do.** Schedule your project to avoid conflicts with other science center commitments or with the ongoing activities of the after-school programs. At one *Design It!* science center, the opening of a new facility required staff attention. The demands on their time delayed *Design It!* workshops and implementation of the curriculum at the after-school programs.
- **Remain flexible and adaptable** to changing conditions and resources.

Once you have clarified what the science center can and cannot do, it is time to begin recruiting and selecting after-school program partners.

How to Prepare for Recruitment of Collaborative Partners

To prepare for effective collaborations with after-school programs the science center educator will need to do some homework. It is important to ask yourself several questions:

- What do we know about after-school programs?
- What do we know about particular neighborhoods in the community?
- Why are we proposing this project now?
- What potential benefits are there for each party?
- What skills and knowledge do we bring to this work?
- What experience do we have in working with after-school programs and the community?
- What do we believe about how children learn in after-school programs?

We have learned a great deal both about the people who work in after-school care and about how to present activities to children. Contact with the project has also enriched other staff members. Camp Widget staff are having SO much fun preparing for the summer program that I think we should make them pay us for taking part!

Staff, Baltimore Museum of Industry

These guiding questions can help you to:

- Pinpoint attitudes or beliefs that might affect the collaboration process.
- Think through the project and help science center staff and management see its value.
- Develop your message for potential partners.
- Formulate your selection process and identify non-negotiable items.
- Learn more about the after-school community.
- Link your project with existing community projects and activities.
- Dispel the fears of science which may be shared by many adults in the community.
- Explore the issue of competition for funding with potential partners.

The Role of the Science Center Educator

A successful partnership needs a leader who can

- Help build a firm financial base.
- Promote the project effectively.
- Organize the work efficiently.
- Manage the partners in a fair and respectful way.

The science center educators who participated in the *Design It!* pilot project had a range of leadership experience. Some had worked at science centers for many years but were new to working with adults. Others had lots of experience working with children in other educational settings. And some were just beginning their careers in a science center. Few had had any direct experience applicable to training the adult staff in community-based after-school programs.

During monthly conference calls with EDC and NIOST, as well as at an annual conference for all partners of *Design It!*, science center educators had opportunities to build their leadership skills.

Resources

To find information on establishing community partnerships, managing community-outreach, and building leadership skills, contact:

Association of Science and Technology Centers (ASTC)
(www.astc.org)

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Meeting the Challenges of Designing Partnerships

Once you have assessed and marshaled the resources of the science center and are clear and confident about what you can bring to the collaboration, you will have to tackle **five challenges** to develop a successful partnership with after-school programs:

- **Spread the idea to potential partners** by contacting familiar community organizations and making overtures to others.
- **Assemble your team of partners.**
- **Build a relationship with your partners.**
- **Light the way with training** and technical assistance.
- **Drive the project forward with your partners** with the support of additional resources.

It would be convenient if these challenges could simply be addressed in order and checked off as they are completed. But it is the nature of collaboration that each of these challenges is ongoing and that they all require vigilance. For example, you may select an after-school program and start building a relationship only to learn that the program has to drop out of the science project. You will need to re-recruit, re-select, and build a relationship with a new program while continuing your ongoing project work with other partners. Flexibility is essential to respond to emerging needs and to take advantage of unforeseen opportunities.

The following sections will examine each challenge and provide suggestions for building a strong partnership.

In the case of partnerships between organizations such as ourselves and the CBOs, we need ways of fulfilling our mission -in our case fostering an understanding of the importance of industry-and enabling the institution to thrive, by attracting visitors, grants, etc. The CBOs need interesting programs to present to their charges. Both these ends can be served in a program such as this.

Staff, Baltimore Museum of Industry

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To work effectively with after-school programs, science center educators need to:

- **Understand community needs**, cultures, politics, and other issues facing children and after-school programs.
- **Find effective ways to communicate** with after-school program staff, such as newsletters, Web sites, community meetings, and special events.
- **Provide a science and engineering curriculum that is easy to implement** with inexpensive materials and is attractive to children.
- **Become a trainer of trainers** in order to support after-school staff who will train other staff and volunteers.
- **Create a comfortable workshop environment** that embraces different learning styles.
- **Provide effective feedback** and technical assistance to after-school program staff.
- **Give after-school program staff opportunities** to build their own leadership skills.
- **Develop sensitivity** to gender, diversity, and equity issues.
- **Showcase children's achievements** through family days, displays of the children's work, and newsletter articles.
- **Build awareness** of the importance of science and engineering activities and encourage parent involvement.
- **Keep the project moving along as planned.**
- **Seek additional funding and resources as needed.**

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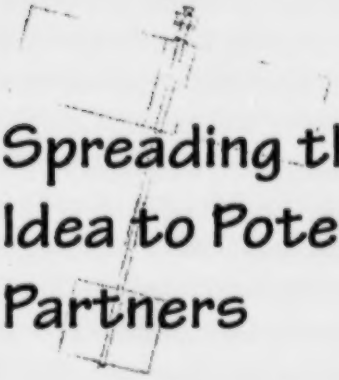
Challenge ONE



Spreading the Idea to Potential Partners

The best time to find partners is before you need them. Ideally, a science center will already have made a connection with the community before a major project is on the horizon. Begin your recruitment effort by tapping the contacts of the entire science center staff. Your colleagues may already be familiar with after-school programs that have availed themselves of such other science center services as kit rentals, community events, field trips, and visits to after-school programs. Several *Design It!* science center educators received referrals from staff who worked with community organizations in the YouthALIVE! project.

If you are new to collaborating with community-based organizations (CBOs), or if you are seeking links with new after-school programs, or your funder's parameters specify particular audiences, neighborhoods, or income groups, several national and local resources can help with your recruitment challenge.

Task 1: How to Find After-School Programs

Contact Community-Based Organizations Directly

The main providers of after-school programming to low- and moderate-income families are private, nonprofit social-service agencies and schools. Such providers include:

- Child care centers
- Community centers
- Child and family service agencies
- National youth-serving organizations, particularly Boys & Girls Clubs and YMCAs
- Municipal agencies, parks, and recreation departments
- Park districts
- Libraries

Boston Children's Museum has a long history of working with community-based after-school programs. Several of these programs have stable staffs who participate in many citywide after-school initiatives. They are familiar with the museum and knowledgeable about each other's programs. Thus a solid foundation for establishing a partnership already exists. The after-school program staff trust the museum to provide a high-quality project and to offer appropriate training and support.

The St. Louis Science Center, one of only two free science museums in the United States, hosts three annual Community Science Days during which community groups are invited to plan and participate in hands-on activities. At these events, science center staff and after-school program staff get to know each other, and each other's resources, and can explore possibilities for working together.

- Public, private, and parochial schools
- Churches and faith-based organizations
- Ethnic mutual-assistance associations
- Public housing authorities
- Tutoring/mentoring organizations
- Community-development corporations

One option is to contact an umbrella agency that manages several after-school programs. In Boston, for example, a network of community centers provides after-school program staff with varieties of administrative support that single-site providers may lack. However, large organizations like the YMCA, YWCA, and Boys & Girls Clubs frequently have a set curriculum. Be prepared to demonstrate how your science and engineering project can complement their after-school program's established approach to science and other activities.

How to learn more about after-school programs

- Access the Web site of the National Institute on Out-of-School Time (NIOST) to learn about research, statistics, training, and overall national trends. www.niost.org
- Access the Web site of the National School Age Care Alliance (NSACA), for links to state and local professional organizations and trainers. www.nsaca.org
- Request a list of youth and family service organizations from the city, the state office, or a local child care resource and referral agency.
- Visit local after-school programs.
- Hold an open house at the science center for after-school program directors, staff, and parents to discuss the topic of learning science in an informal setting.
- Invite after-school directors to an informational breakfast to introduce your project and solicit initial feedback.
- Read the community newspaper to learn about community issues and events.
- Attend fairs, festivals, and other events at community organizations to get to know after-school directors and staff informally before you suggest a partnership.
- Recruit a community resource person (CRP) knowledgeable about after-school programming and aware of local resources.

Enlist the Help of a Community Resource Person

A community resource person is an experienced after-school provider who serves as an expert to help programs find or customize solutions and address barriers to curriculum implementation. NIOST recruited a CRP to work with each *Design It!* science center. The science centers found that a skilled CRP could offer:

- Deeper understanding of community-based after-school programming and the challenges of delivering the *Design It!* curriculum.
- An insider's perspective on recognizing and addressing other issues confronting after-school programs.
- A stronger connection to the after-school program community.
- Guidance in selecting after-school programs capable of fully participating in the *Design It!* curriculum project.
- Feedback on content and implementation issues of the *Design It!* activities from an experienced after-school provider's perspective.
- Assistance during the monthly training workshops and site visits.

Finding a CRP familiar with community-based after-school programs can save a science center educator time and energy that can then be applied to the content and implementation of the project. A CRP may know of programs that are seeking collaboration or programs that would welcome a collaborative project but hesitate to approach the science center on their own. A knowledgeable CRP who understands the barriers faced by many after-school programs can open up your recruitment process to the whole community, help you chose partners that will both enrich the joint project and benefit from it, and help interested after-school programs with the application process.

The CRP's perspective and specialized knowledge can help you build effective working relationships with after-school programs. The after-school programs can also benefit from the CRP's help in addressing infrastructure needs such as space, scheduling, and staffing.

To find a CRP, contact the following organizations:

- A child care resource and referral agency (CCRRA) that may have staff knowledgeable about after-school programs.
- A state-wide or local school-age alliance whose members are after-school program directors and staff.
- Family service agencies and organizations.
- Local colleges and universities.

After-school program directors and other community members may also be able to provide referrals.

A CRP is a way to have a resource network available to the science center. When I have a specific need, I can use this person as a shortcut instead of tracking down every resource myself. This saves me lots of time and leaves me connected to the project in a supportive role. I can then build in time during our monthly workshops to address the issues that arise, such as advocating for the kids' needs.

Staff, Science Museum of Minnesota

Other Ways to Find After-School Programs

The Web site for your state government may provide links to the agency that supports after-school programs, such as the Office of Family and Child Care Services or the Department of Education. These agencies usually have lists of licensed and/or school-based after-school programs.

During your search for community-based organizations with after-school programs, you will learn about after-school programs sponsored by schools, faith-based and church groups, and local neighborhood associations. At several *Design It!* science centers, members of the board of directors recommended community organizations to contact.

Be prepared to recruit new after-school programs after the initial recruitment phase of your project. Several *Design It!* science centers had to recruit new after-school programs when a new after-school director shifted program priorities away from science and engineering. The best strategy is to get acquainted with after-school programs on an ongoing basis.

Hold regular open houses to talk about science and about the science center's services and resources. Ask staff from after-school programs that have already worked with the science center to be on hand at these events to answer questions: enthusiastic peers can be very persuasive. Be sure to invite decision makers, including after-school program directors, board members, and the principals of schools with school-based after-school programs. Treat them like VIPs. Ask them to sign a guest book. Serve food. Give a brief welcoming speech. Encourage questions. To promote attendance, offer incentives such as educational materials and door prizes. Take photographs for the science center newsletter and community newspaper. Respect your potential partners' time and avoid scheduling events during after-school hours.

Be patient about recruitment. If you don't start with known after-school program partners, it will take time to locate potential partners and build a relationship. *Design It!* science centers new to collaborating with after-school programs, took much longer to find programs to consider as partners. As a result the *Design It!* project got off to a late start. After-school program staff had fewer training sessions and children had fewer activities than planned.

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Task 2: Your Recruitment Message

Your other main task in this phase is to engage after-school program directors' interest in what your curriculum/project can do for their children. Initially, many will need to be persuaded that they can benefit from and succeed at collaboration. Meeting one-to-one with each after-school program director conveys your interest in and respect for what the program is currently doing. After-school program directors need to hear how collaboration will promote their goals for children. Otherwise the after-school staff may regard the project as an inconvenience imposed by the science center rather than a collaboration.

Your goal should be to encourage the after-school program director to picture after-school staff presenting science center activities in a way that supports the after-school program's goals. These conversations also introduce the message and language that directors and staff may want to use when explaining the collaboration to their board of directors, parents, children, and funders.

Resources

How to Find Local Community-Based Organizations

National Association of Child Care Resource and Referral Agencies (NACCRRA) Contact NACCRRA to obtain a list of child care resource agencies in your area. These agencies can provide the names of after-school programs. (www.naccrra.org)

National School Age Care Alliance (NSACA) This professional organization maintains a list of state coalitions of after-school programs and a database of trainers. NSACA publishes a journal and sponsors a national conference. (www.nsaca.org)

YMCA (www.ymca.net)

Boys & Girls Clubs of America (www.bgca.org)

Girls, Inc. (www.girlsinc.org)

Camp Fire Boys & Girls (www.campfire.org)

4-H Council (www.fourcouncil.edu)

The DESIGN It! Recruitment Message

Participating in the DESIGN It! curriculum enhances skills that can lead to school successes:

- teamwork
- critical thinking skills
- creativity
- self-confidence

These are achievements that after-school programs also want for their children.

To find additional national organizations, consult the Web Directory in Appendix C.

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Have a clear dialogue about your needs as well as theirs. Frankly address any issues that may come up—this includes helping them with internal support, understanding time management for the project, and finding effective ways to sustain the project.

Staff, St. Louis Science Center

Challenge TWO

Assemble Your Team of Partners

Once you have had initial conversations with possible after-school program partners, the next challenge is to assemble your team by completing three tasks:

1. Decide on your selection criteria.
2. Get to know each program and its staff.
3. Select your partners.

Task 1: Decide On Your Selection Criteria.

When you talk with directors and staff of after-school programs, be clear and consistent in explaining the criteria you will use to select collaborative partners.

DESIGN IT! Selection Criteria

To participate in *Design It!*, the community–based organizations agreed that

- The after-school program will implement *Design It!* activities for at least 60 minutes at a regular time once or twice a week from September to May.
- Each activity will be offered to every child in a particular age group.
- Program staff will attend a monthly workshop at the science center.
- The program will designate one or two staff members to implement the *Design It!* curriculum.

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The list of requirements you compile will probably be based on the science center's goals for the project, the complexity of the curriculum, and the constraints that after-school programs face. The funder's requirements may include a specific socioeconomic group, age range of participants, and location of the after-school program. For example, the NSF funding for *Design It!* targeted school-age children from groups underrepresented in the science and engineering professions who were enrolled in urban, community-based after-school programs.

Some of your criteria will involve features of the after-school programs; others will involve commitments you will want the after-school programs to make. Your knowledge about community-based organizations can help you shape the selection criteria so that it reflects both the requirements for a successful project as well as the realities faced by after-school programs. Above all you want to select partners who will contribute to as well as benefit from the collaboration.

It is important, however, to maintain the integrity of your project and to select partners that can meet a high percentage of your criteria. You may need to negotiate some items as the formal launch of the partnership draws near. But be firm about those you consider non-negotiable.

Task 2: Get to Know Each Program and Its Staff

You should gather similar information about each potential partner by means of:

- Written materials, such as the program's brochure, mission statement, and agency reports.
- Conversations with the director, program staff, families, children, and community members knowledgeable about the program.
- Site visits during operating hours to
  - See the space.
  - Get a sense of the social environment.
  - Learn about the activities currently available to children.
  - Ask about the consistency of the schedule.
  - Observe the facilitation style of the staff.
  - Find out about staff turnover rates.
  - Talk to the director about the time commitment and resources required by your project.
  - Determine whether the program fits with the goals of your project.
  - Reflect on whether you feel comfortable in the setting and confident that you can collaborate effectively with the program staff.

There is a high degree of staff turnover in after-school care, so it is important to include all key players (directors, teacher, etc.) in the program training. When more people from the CBO are involved, you also see a higher level of commitment towards the program.

Staff, Pittsburgh Children's Museum

Be flexible and sincere!

Recognize the expertise of the people in the community organizations and treat them as professionals.

Realize that every community organization has a unique system of operating; you may have to alter your system to comply with theirs.

Staff, St. Louis Science Center

- Be present when family members pick up their children to briefly discuss how a science program can provide valuable lessons in teamwork, problem-solving, and imagination building.

You may decide to demonstrate the curriculum for the staff, families, and children to convey that science and engineering are important and that the after-school program is a place where children can pursue science learning through engaging hands-on activities.

Visiting an After-School Program

Imagine yourself walking into an after-school program. As soon as you enter the front door, you encounter a multitude of sights and sounds. Adults and children are scurrying about.

- Who is the first person you see?
- What does the room look like?
- How do the adults interact with the children?
- How do the children interact with each other?
- Are the children engaged in activities or wandering aimlessly about?
- Is children's work displayed?
- Where will your hands-on science project fit?
- What time, space, and staff constraints do you see that could hamper your science and engineering activities?

Review the scheduled activities and walk around the entire space. Even small details can give you important information and insights about the program's organization, daily routine, atmosphere, and culture.

Talk to the Program Staff

Talk to the after-school program's decision makers and the one or two staff members who will implement the curriculum. Learn and use staff members' titles. By using their titles in your subsequent dealings with the program, you will convey respect for the individuals and their organization. Typical staff titles are executive director, program director, site manager, site coordinator, program leader, teacher, and line staff. At some centers, children address staff by their first names; others prefer Ms. and Mr. Ask the staff how they would like you to address them at monthly workshops with their peers and on site visits.

Maintain regular contact with the people who can answer your questions and approve proposed initiatives or program changes. Give the director a

written description of the curriculum project you are proposing to help him or her present it to the program's board and funders. Include the following items:

- A description of the project
- Cost to the after-school program
- Staff roles and responsibilities
- Project requirements, such as space, schedule, and structure
- A description of training and technical assistance provided by the science center
- A description of any risks to which the activities will expose the children
- Any other information that helps explain the benefits and challenges of participating

Visits Help Both Partners Evaluate How Well They Connect

After-school program staff members who participated in *Design It!* repeatedly stressed that they wanted the science center staff to visit their program before a formal agreement was finalized. Some science center staff had never visited an after-school program, and site visits familiarized them with the everyday issues that after-school program staff face regularly.

The CRP acquainted the science center staff with the NSACA Standards for Quality School-Age Care and the day-to-day realities faced by after-school staff. The CRP explained the differences between an informal learning setting of an after-school program and a formal school classroom. This background information helped science center staff adjust their expectations about staff performance and children's participation.

Site visits also made the *Design It!* science center educator aware that some programs would benefit from adaptations or expansions of the basic curriculum.

I think that getting to know the other organizations working in the field is one of the more important things to do. We have recently come in contact with B Bravo, a group working on improving the quality of after-school care by providing support and training. We are hoping to learn a great deal from these people about how to sustain our program.

Staff, Baltimore Museum of Science and Industry

Get Acquainted with the Space, Schedule, and Structure of the After-School Program

Space

After-school programs are part-time operations that usually share space (typically cafeterias, gymnasiums, or classrooms) with other programs and/or organizations, such as community centers, churches, or public schools. This setup works well as long as the children feel they belong and the staff can create a friendly and effective environment that accommodates a range of engaging activities. For example, if the after-school program is located in a gym and serves 75 children who are free to roam from activity to activity, you may want to choose science and engineering activities likely to catch a child's eye and to use inexpensive materials so that many children can participate. In settings such as these, it often works best for small groups of children to work together as a team for a set amount of time in a space away from other activities. Some *Design It!* after-school programs used hallways as a place to work without interruption and distraction.

During your visit, ask the after-school program staff to pinpoint the space available for activities, storage, safekeeping of works-in-progress from one session to the next.

Schedule

During your initial site visit, ask the program director for a written copy of the program's daily and weekly schedule, including transition times, arrivals, and departures. The timeslot when family members arrive to pick up children is typically marked by distractions and interruptions. It is hard for children to drop an engaging project and leave without distracting the staff and other children. Be sure to find out when this transition occurs so you can avoid scheduling your program then. Since you want the children to participate in the entire activity, including the discussion and wrap-up, it is important to know the real duration of time available for the activity—from beginning to end. If your activity will coincide with children's departures, make sure that there will be enough staff on hand to allow some to remain focused on the activity while others help children get ready to leave and greet family members. An after-school program is more than the sum of its activities: relationships that develop among staff, children, and families require at least as much attention as the program activities.

A Typical After-School Program Schedule

To ensure that enough time is available to carry out the planned activities, it is important to understand a typical daily schedule:

2:30-3:00	Children begin to arrive.
3:00-3:45	Check-in and review of the afternoon's plans. Children pursue activities of their choice, such as outdoor play, homework assistance, and self-directed activities like reading, board games, and talking with friends.
3:45-5:00	Staff facilitate organized group activities such as art projects, clubs, and outdoor sports. A snack break may also be scheduled.
5:00-6:00	Children are picked up at various times.

The length of time allocated to structured activities varies considerably among after-school programs, which sometimes means a much shorter period is available for a science project. For example, the Connecticut after-school programs that participated in *Design It!* start later, since the public-school day ends at 3:00 PM. Some children transported from public schools arrive as late as at 3:20 PM. Allowing for snacks, homework, and departures as early as 4:00 PM, may leave less than one hour during which to focus on an activity.

For these scheduling reasons, some *Design It!* programs devised alternative plans. A few discovered that the before-school program was the best setting for the curriculum. Other programs took advantage of the longer days available during school vacations, holidays, and early-release days; the extra hours gave the staff more time to set up the activity, engage the children in discussion, and extend the design challenges.

Some after-school programs will already have too many activities scheduled to participate in a science center project. It is imperative to be realistic about the amount of available uninterrupted activity time. By accounting for all activities and transition times, you and the after-school program staff can jointly gauge how flexible the schedule is and whether it could change over time with a view toward incorporating a science and engineering program. Some *Design It!* after-school programs initially offered the curriculum on Saturdays. When the staff, children, and families all found the curriculum to be an enjoyable and valuable learning experience, the program schedule was revised so that *Design It!* activities could be offered several afternoons during the week.

When choosing which CBOs to work with, it is imperative to target centers with motivated, experienced coordinators. The centers I've worked with that had coordinators who were enthusiastic and involved were able to keep their program leaders on task. Those who were new and still struggling with many aspects of their job had divided attentions, and their program leaders were more likely to miss workshops or lack in activity participation.

Staff, The Children's Museum of Boston

Have a clear dialogue about your needs as well as theirs. Frankly address any issues that may come up—this includes helping them with internal support, understanding time management for the project, and finding effective ways to sustain the project.

Staff, St. Louis Science Center

Ask about the yearly calendar, too. Are there early-release days for the children three to four times a year because of professional-development allowances for public-school teachers or for other reasons? Is the program schedule more flexible on these days? Are these potential opportunities for a visit to the science center or to other after-school programs participating in the partnership?

Structure

After-school programs organize activities in a variety of ways. In small programs, all the children may follow the same sequence of activities. Other programs offer several activities simultaneously and let children choose an activity or sequence of activities. Other after-school programs adopt a "club" structure in which a limited number of children regularly meet to focus on theme-related activities like cooking, photography, music, or science. A club structure often allows program staff and children to tackle a more involved curriculum over an extended time.

If you understand how a program structures activities, you and the after-school program staff can work out the specifics of how your science and engineering curriculum might fit the program's structure. Together you can discuss what program changes are possible. Some after-school programs organized a *Design It!* club. A program with fewer children and mixed ages offered *Design It!* as an activity that all could participate in at whatever level their skills allowed.

By thoroughly exploring each program's space, schedule, and structure, you can more readily select after-school programs that can benefit from the curriculum. By discussing the curriculum's requirements from the start, you can launch your project quickly and efficiently, with a minimum of disruption and optimal cooperation.

Task 3: Select Your Partners

With all the information gathered on your site visits in hand, you can compile a profile of each program that includes:

- Demographics of the children and families served
- Program mission
- Program's current schedule, activities, and commitments
- Staff backgrounds
- Floor plan of the space, including furniture and equipment
- Special characteristics of the program
- Flexibility about changing the program's features

Comparing these profiles with your selection criteria will help you choose the after-school programs most likely to benefit from and contribute to the success of the partnership. Thoughtful analysis of your observations and your reflections about the site will help you to determine whether it is a good match for your science- and engineering-project, and to answer the question, "Will both the science center and the after-school program benefit?" For example, you should be able to tell by now whether your science curriculum project is philosophically compatible with a given after-school program in terms of academic content, tone, and attitudes toward learning and toward children. Is the community-based organization "ready" to participate fully? Is the program stable? Does it have enough staff and enough funding? Recognize and acknowledge that there may be reasons not to participate in the current project. But keep the door open for future partnerships with an after-school program that may not be the right partner for this particular opportunity.

Resources

To help you assemble your team, the following *Design It!* tools are provided in Appendix B:

Observation of an After-School Program

After-School Program Schedule

Questionnaire for Directors of After-School Programs

After-School Program Profile Sample

Notes:

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Challenge THREE

Building a Relationship with Your Partners

Once you have selected your partners, the next challenge is to build and maintain a relationship that will work for all partners. This effort is never complete; it is ongoing.

The three main tasks to address are:

1. Building rapport
2. Negotiating the relationship
3. Checking on progress

Task 1: Building Rapport

The most crucial task for the science center educator is to develop a comfortable and respectful working relationship with the after-school staff and to keep all partners focused and motivated. To achieve trust, openness, and mutual respect, science center staff often need to be exceptionally resourceful.

Experience in training and working with adults of different ages is key since after-school staff may range from college students to retirees. The after-school staff will not just be learning curriculum content; they will also be developing the skills to facilitate and guide hands-on, inquiry-based activities. Either endeavor may provoke anxiety for any number of reasons, including:

- Little prior experience or negative experiences with science education.
- Discomfort with the inquiry-based approach to activities.
- Uncertainty about motivating and engaging children who vary in age, interest level, and talent.

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The enthusiasm and encouragement of the after-school program staff can spark children's natural curiosity and desire to explore. But because few after-school programs routinely offer science activities, staff who are familiar with guiding sports, art, music, and reading are often insecure about facilitating science and engineering activities. Taking the time to address personal barriers and misperceptions about science and engineering can help staff members build confidence and enthusiasm. It is important to remind staff that your curriculum guide reflects ideal program conditions, which rarely exist in a real-life setting. Build on the strengths of your partners and encourage them to support each other. You can then move from the role of "science expert" to that of collaborative partner focused on "what we are doing together."

As a partner, the science center educator will be learning about the after-school program, the children and families served, and how individual staff members learn and approach their work with children. Acknowledging that all partners are engaged in a learning experience can help build the connections necessary for an effective collaboration.

Task 2: Negotiating the Relationship

As initiator of the project, the science center educator will play many roles in the course of the collaborative partnership, possibly including:

- Coach
- Mentor
- Confidante
- Program therapist
- Change agent
- Observer
- Problem solver
- Trainer
- Finder of resources
- Cheerleader
- Developer of leaders

For the collaborative project to thrive, it is important to clarify the resources you can offer as a science educator and your expectations for after-school program partners. The *Design It!* science centers found a "Letter of Agreement" formally spelling out the roles and responsibilities of the science center and the after-school program to be helpful.

Be flexible! Each CBO has different needs and capabilities. The Children's Museum needs to be sensitive to this so that the community-based organization feels like they are a part of a true collaboration.

Staff, Pittsburgh Children's Museum

31 Challenge Three

After-school programs vary in their management styles and in how much responsibility the director is willing to delegate to the staff. Even when the program staff are highly enthusiastic about offering science activities, be sure to maintain an ongoing dialogue with the director about how the new curriculum fits in the overall program.

After-School Program Issues Addressed in the DESIGN IT! Project

Science center educators spent time at the beginning of the *Design It!* project helping the director and staff address such programmatic issues as:

- Scheduling
- Space management
- Integrating the new curriculum into the overall mission and array of activities
- Storing materials and supplies
- Recruiting children
- Deciding on groupings of children
- Informing and involving parents
- Recruiting and training new staff
- Finding and training volunteers
- Supervising staff and volunteers

As the project progressed, many of these issues were revisited. During monthly workshops, after-school staff shared their ideas about facilitating and managing the science and engineering activities. This exchange helped staff to gain different perspectives about the impact of the *Design It!* curriculum on these program issues.

Be as clear as possible about the non-negotiable conditions that are necessary for success: for example, adequate and well-managed space, a given number of participating children, qualified and committed staff, appropriate scheduling, and the mission of the after-school program. By observing in several after-school settings during the recruitment phase, you will realize which program components are a priority for your science and engineering project.

Occasionally—perhaps as a result of a staff resignation or a change in available space—an after-school program may need to discontinue its participation, either temporarily or long-term. Make a point of staying in contact with the program director to facilitate a possible future collaboration.

Task 3: Checking on Progress

Agree in advance on a regular schedule for discussing the progress of the project. Specify dates and times, rather than leaving this important task open-ended.

There are several ways to check in:

- Schedule telephone calls with the director and staff
- Share experiences and issues at each workshop
- Visit each after-school program

Schedule Telephone Calls with the Director and Staff

Telephone conversations with the staff and the director can keep you informed about how the project is faring at each after-school program. A well-timed call also shows your interest in the program and keeps the lines of communication open. Asking about specifics will be more valuable than merely asking, "How's it going?"

When you call the director and the staff, be respectful of their time. Encourage them to talk about successes as well as stumbling blocks. At first they may avoid sharing negative information. They may be grateful for the curriculum materials and fearful of losing them if they complain. Be alert to what they may not be telling you as well as acknowledge what they do tell you. But be firm about your role. Focus on what you can realistically offer and resist drifting into discussions of other matters. For example, if a director complains about a particular staff member, ask about options for other training that could help this person improve.

When you have established a comfortable working relationship, invite the staff to tell you what they want to discuss during your regular telephone calls, such as suggestions for the workshops, feedback about the overall project, and their progress. Use these conversations to get to know each other better and to draw out questions and problems that are not suitable for workshop discussions with all the partners but which still need to be addressed by you.

E-mail may or may not facilitate communication; ask the director and staff which communication method works best for them. For important, time-sensitive information, such as changes in meeting times or notices about new funding opportunities, it is best to communicate in multiple ways.

Share Experiences and Issues at Workshops

At each monthly workshop, allot some time for each after-school program to describe how the project is progressing at their sites. Doing so will demonstrate that other programs are encountering similar issues and allow participants to share potential solutions.

When participants raise questions or concerns, several responses are possible:

- Model excellent practice during the workshops and make your modeling the focus of discussion.
- Help arrange site visits to other programs to observe a demonstration of a particular approach to programming.
- Work with the staff to set up the environment at their site.
- Offer to demonstrate how to facilitate the activities at their site.
- Suggest additional science materials.
- Recommend sources of information or funding.
- Recommend other training and community resources.

Let participants know how and when to reach you between workshops. If you are not available, make sure that an alternate contact person is available to assist them. As they become more comfortable reaching out to you, reinforce their enthusiasm and provide support as they try out their new skills. If the science center has a resource center, provide information on how to access additional resources. Also encourage participants to contact each other. Compile a list of all participants including contact information and areas of expertise that they are willing to share with the others.

Visit Each After-School Program

A site visit is an opportunity for you and your partners to work with a particular after-school program's space, children, budget, and volunteers, and to make adjustments that would make the curriculum more effective and enjoyable for the children and the staff.

Be aware of the biases you bring to the situation. Acknowledge that you and the program staff have beliefs about how children learn, what is appropriate behavior, and how to present activities to children. Remember that collaboration affords an opportunity for dialogue and growth by all parties. How you or a particular staff person work with a group of children stems from personal and professional experiences.

Recognize and reflect on differences in approach, so that you can learn from one another how to effectively offer hands-on science to this group of children. For science center educators accustomed to working in class-

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room settings, the informal learning environment of an after-school program can seem unfocused and even chaotic. Also, after-school programs vary in the resources they have available and in the skillfulness of the staff.

By drawing up a list of curriculum-specific questions or elements before your visit, you can focus your observation on what is working and what can improve. Set goals for each site visit. Ask the program staff which aspects of their work they would like feedback on and limit your feedback to these items until you know the staff member better.

If possible, ask the director to observe for specific factors. Given their experience in after-school programming, they might observe things that you miss. If the director participates in the site visit, it may be easier for him or her to give feedback to the staff. By observing the staff implementing the curriculum, the director may agree to program changes more readily such as the need for a separate space where children can work without interruption. As you become more comfortable with each other, encourage the staff to identify specific teaching behaviors, such as asking questions, introducing the activity, and managing the group, on which they want feedback.

Remember that the science center, the after-school program partners, and the collaborative relationship itself will change over time. A continuous, concise, and conversational approach to evaluation may provide an effective way to build and sustain the collaboration. With this approach, partners can raise issues and suggest changes that can be implemented more quickly than if data is collected and reviewed only at the end of the project.

Resources

The following *Design It!* tool is in Appendix B:

Sample Letter of Agreement

Advice from DESIGN It! Science Centers

During site visits the science center facilitator can gain a lot of information working with and talking to the kids. Since the collaboration between the CBO and the science center is meant to benefit the children, it seems necessary to gain their perspective of how the program is working. Also the site visit shows the CBO that the science center has a real interest in helping them to make the program a success at their site.

Challenge FOUR

Light the Way with Training

Now that you have recruited, selected, and started to build a working relationship with your new partners, the next challenge is to help the staff to use the curriculum effectively in their after-school programs.

To meet this training challenge, you will need to tackle the following tasks:

1. Develop a training and technical assistance plan
2. Hold an introductory session
3. Facilitate regular workshops
4. Provide technical assistance

Task 1: Develop a Training and Technical Assistance Plan

As you develop your plan keep in mind that some after-school staff will probably be uncomfortable with science and engineering and unfamiliar with facilitating hands-on inquiry-based science activities. Proceed slowly at first. Above all, you want to develop a comfortable working relationship with your partners and ensure that all after-school program staff feel comfortable and supported.

When scheduling training and follow-up site visits, acknowledge the participants' time constraints. Unlike public-school teachers, after-school staff rarely have professional development days. Many have other jobs or attend school. Deciding on the right amount of time is equally important. Sometimes it works best to hold one or more full days of training at the start of the project. Another approach is to hold monthly workshops, each dedicated to a particular topic or curriculum module.

Invite the right people. At times it will be appropriate to include both directors and program staff. At other times, it will be important to gear

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the content to a specific audience. Training need not always take place at the science center. Participants may enjoy hosting workshops, an approach with many extra benefits. As they tour other programs, participants may gain fresh ideas about the uses of space and learn new approaches to shared challenges. Visits to each other's programs may encourage participants to exchange ideas and resources during the project and in the future. These positive exchanges motivate staff to participate in the workshops regularly and to implement the curriculum conscientiously.

Task 2: Hold an Introductory Session

Before delving into the science curriculum modules, it is productive to schedule an introductory meeting to:

- Set the tone for your work together.
- Introduce after-school staff to each other.
- Discuss the value of fostering cooperative learning so that children build on each other's ideas.
- Review the resources that the science center can offer (curriculum, supplies, and training) and acknowledge what each after school program is contributing (children, families, space, experience, commitment) to the partnership.
- Establish guidelines for the workshops and for curriculum implementation.
- Convey the importance of attending workshops regularly and participating fully in the curriculum.

At one *Design It!* science center, staff used an engineering challenge to explain the concepts and assumptions embedded in the curriculum. *Balls and Tracks* challenges small teams to construct a roller coaster with multiple loops using foam insulation tubing for the tracks, marbles, masking tape, and items like furniture, books, and blocks to support the structure. This hands-on experience enabled the after-school program staff to experience the excitement of this approach and allowed the science center educators to model how to facilitate the activity later with children. It also allowed for both partners to practice asking open-ended, leading questions. During the session, you can demonstrate strategies for doing balls and tracks in a limited space—a barrier for some after school programs who want to implement the curriculum. You can also ask the participants for additional ideas.

The introductory session is also an opportunity to highlight a few basic issues concerning the pedagogy of inquiry and some characteristics of quality after-school programming. If available, videotapes of staff guiding children through science and engineering activities can highlight such

implementation issues as how to engage children in the activity, what approaches did not work well for the staff, and children's responses during the activity.

The goal of this introductory meeting is to help participants imagine themselves leading activities and responding to children in a way that fosters learning. At the end of the session distribute handouts including the name and telephone number of a contact person to call with follow-up questions and possibly a schedule of monthly workshops, site visits, and special family events.

Advice from DESIGN IT!

Many of the staff members that work in the CBOs do not have formal training in working with children.... The science center may need to include certain educational practices or methodologies in the training sessions such as cooperative learning and questioning techniques.

The training sessions need to be motivating so that the participants look forward to attending. This includes stimulating content, a well-organized workshop, food, and a relaxed atmosphere.

Task 3: Facilitate Regularly Scheduled Workshops

At the introductory session, and in the first few workshops, provide adequate time for the participants to introduce themselves, characterize their interest in science and engineering, and describe how the children in their program are responding to the curriculum. These self-introductions will enable you to assess each participant's skills and interests and to identify candidates to lead future workshops. This informal skill assessment can also pinpoint other ways to effectively facilitate the science curriculum. The CRP may be helpful in identifying resources to help staff build needed skills.

Workshop Content and Format

The *Design It!* project held monthly two- to three-hour workshops to introduce participants to each curriculum module. Working in small groups in a relaxed, cooperative atmosphere, participants tackled the design challenges themselves. They thus experienced and anticipated the excitement, questions, and discoveries that their children would encounter.

Although the main focus of the monthly workshops was to familiarize staff with the next curriculum module, participants also shared their success stories, worries, and problems. One of the indirect goals of *Design It!* was establishing and strengthening connections among after-school providers. After-school program providers often feel isolated from other providers and have access to few opportunities for professional renewal. Workshops provide participants with an excellent chance to establish and strengthen connections while learning from their peers.

Evaluate the Project Together

Some of the questions *Design It!* partners discussed at each monthly workshop were:

1. Can you describe the children's reactions to the activity?
2. What did they like best? Least?
3. How did the children behave and interact?
4. How did they handle the materials? follow directions? work as a group? discuss their progress?
5. What, if any, parts of the activity were especially difficult for the children to do or understand?
6. Can you share some of the children's comments and/or questions?
7. What responses have you had from families?
8. If any of the families have seen the activities, what are their comments and/or questions?
9. What effect do you think the project is having on the children?
10. Can you think of new ways for us to support each other in the implementation of this curriculum?

Manage Your Time Together

How much hands-on practice the participants have during the workshops will of course depend on the project and the length of time for the session If you have time for only one activity, be sure to show how all activities in a module relate and build on one another. Stress to the after-school staff the importance of preparation on the part of all facilitators of the curriculum. Acting as a role model, walk through the steps you took to prepare your workshop. Get concrete: have the staff focus on how they will set up their day and go through the activity with the children.

At each *Design It!* workshop, science center educators presented both the curriculum itself and the process of facilitation. In role modeling facilitation techniques, it proved helpful to use specific language, such as, "If I were with the children, I would...." Through modeling and commentary, science center staff demonstrated how to implement the curriculum and how to ask leading questions such as "What did you see?", "What can you change to make it work differently?", and "What do you know about how it works?"

Get feedback—not just at the end of the workshop, but also during the workshop—to ensure that everyone is on the same page. One science center had *Design It!* participants write comments about expanding the activity, methods that worked for them, and obstacles they encountered. This sharing may help you and the other partners discover new approaches and

A CRP who was familiar with local, state, and national after-school issues attended the DESIGN IT! workshops. The CRP could describe training, funding, and other resources available for after-school staff. When programming issues like space, storage, and scheduling arose, the CRP offered examples of strategies that had worked elsewhere and resources for additional information and help.

How should you respond diplomatically to suggestions you don't agree with? How can you encourage participants to apply this hands-on approach to other types of learning? Finding a network of your peers on the Internet or at regional or national meetings with whom to explore such questions can help you stay motivated. You may not get it right the first time out.

resources. As you begin a new series of workshops and/or new after-school programs join, involve all the participants in passing on lessons learned to help integrate the new partners. If the project continues for several years, involve continuing participants in deciding which science activities to repeat. When participants have become comfortable with each other, let participants facilitate workshop activities, with you lending support as needed.

Even if some after-school program staff will not read the curriculum guide, it is important to produce quality materials aimed at a broad audience. Well-written and well-produced guidelines will help establish a professional tone.

If specific curriculum materials are essential to the success of the activity, it may be worthwhile to purchase them in bulk. Making them available promptly at the end of the monthly training saves program staff the inconvenience and delay of locating the materials on their own.

Sample Workshop Agenda

- Coffee/networking
- Administrative details: sign-in, introduction of new staff, announcements
- Brief report by each participant on previous month's curriculum
- Feedback and update from the science center educator about observations from site visits and answers to questions about module
- Introduction of the new module and materials
- Small group work on the new module while science center staff circulate and ask leading questions
- Discussion of implementation issues specific to the module and such broader programmatic issues as:
  - Setting up a learning environment to engage all children in activities
  - Meeting the needs of children with different abilities; for example, quiet children, children with learning problems, and children ready for more advanced activities
  - Supporting teamwork and cooperative learning
- Give a homework assignment for participants to complete before the next workshop
- Reminder of the dates for the next workshop and scheduled site visits
- Distribution of curriculum materials

Become an Approved State Training Agency for After-School Program Staff

To motivate the after-school program director and staff to participate in training workshops, it could be advantageous for the science center to offer participants a certificate of training hours recognized by the state licensing office. Both partners could benefit from accessing state funding targeted at after-school program improvement and staff professional development.

Task 4: Provide Technical Assistance

Technical assistance begins with information-gathering visits to partner programs. As you observe and answer questions, you will obtain valuable feedback about the curriculum, the usefulness of previous workshops, and the strengths of each after-school program. The visit will also alert you to site-specific implementation issues and let you observe first-hand the children's reactions to the design challenges.

The after-school program staff in turn will receive your support in implementing the curriculum: ordering supplies, planning for staff coverage, answering questions about the curriculum, and/or facilitating the activities. Be sensitive to their needs and give feedback positively and appropriately. Staff members may ask you to model how to guide children through the curriculum challenges. You will have to decide on an appropriate response, but keep in mind the basic premise of the partnership:

- You are training after-school staff to implement the curriculum rather than working directly with the children.
- Your goal is to help the after-school staff become comfortable with the curriculum and skillful in using the materials and facilitating the challenges.

Your level of participation during site visits depends on such factors as:

- The experience level of the after-school program staff.
- Whether the facilitating staff person attended the workshop. If not, they may need help catching up.
- The involvement of other program staff and volunteers.
- The effective functioning of the overall after-school program.

Again, be mindful that a visit from an outsider can provoke anxiety. Assure the staff, repeatedly if necessary, that this is not an evaluation but a chance for you and the program staff to get to know one another better

The DESIGN IT! Implementation Guide contains specific information about implementing design challenges, including:

1. What Are These Activities About?
2. Preparing to Implement the Activities
3. Doing the Activities
4. Assessing Children's learning
5. Self Assessment checklist
6. Additional resources

See Appendix B for more information.

and to provide effective programming for children. Since the staff is responsible for the children during your visit, set a time that is convenient for them to discuss your observations. Offer suggestions in a helpful but respectful way.

For example, if you observe a difficult situation on your site visit, present it during the next workshop without identifying the program. A peer who may have handled a similar situation may be able to offer helpful insights. Note any factors that make it hard to perform the activity, and ask the after-school program staff to think of ways to approach the task differently. Apply the information participants have shared at workshops when you next visit their sites. For example, if the staff complain that the children act "bad" and ignore the activity, watch for such behavior and look for possible causes. Perhaps the children are distracted by other activities or by other children. Creating a visual barrier with a bookcase or changing the orientation of a table might eliminate the distraction and help the children focus.

On my visit, Justine and her group were on the second activity, "hills and valleys." The kids were very excited. I could tell that Justine had been working with the kids by the language they were using and the corrections they were making in order to get the marble into the container.

Staff, Baltimore Museum of Industry

DESIGN IT! Suggestions for Giving Feedback

- Ask the program director or staff what they want you to look for.
- Ask participants if they want feedback. Never give feedback unsolicited.
- Sandwich your response:
  - Offer a positive comment.
  - Suggest a change.
  - Repeat the positive observation.
- If there are areas of weakness that the program staff has not asked for feedback on, address the issue broadly at a monthly workshop.

Resources

School-Age Notes (SANotes) publishes articles with practical tips on addressing issues in after-school programs. (www.schoolagenotes.com)

Afterschool.gov is a clearinghouse of Federal resources that support out-of-school time providers, programs and advocates. (www.afterschool.gov)

The following *Design It!* tools are in Appendix B:

Homework Reflection Form

Design It! Site Visit Form

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Challenge FIVE

Drive the Project Forward with Your Partners

In the most successful collaborations, partners plan right from the start how they will maintain momentum and sustain their efforts. You may have served as the catalyst for establishing partnerships with after-school programs. Ideally, as the relationship grows, all partners will take responsibility for maintaining a strong partnership. However, your leadership skills will remain important in planning for financial sustainability, celebrating successes, and creating a sense of shared ownership.

As you go forward, you will find that growing with your partners involves five main tasks:

1. Report to current funders and stakeholders.
2. Reflect on the project.
3. Refine the project.
4. Involve families, volunteers, and other community-based organizations.
5. Find new sources for funding and resources.

Task 1: Report to Current Funders and Stakeholders

The continued success of your partnership ultimately depends on demonstrating positive measurable results over time. This is a primary reason to set goals and establish performance standards at the outset and to track successes throughout the project.

It is also essential to maintain contact with your partners—not just the individuals who participate in the workshops and implement the curriculum, but also the director, administrators, and other decision makers. If they are kept informed about the science project's accomplishments, they are likely to renew the partnership.

It is equally important to keep the staff of other science center departments in the information loop. When you recognize and celebrate the good work achieved by the project at banquets, ceremonies, or parties, and also in less public forums, be sure to include everyone—science center staff, after-school program staff, parents, children, community resource people, volunteers, funders, and others who participated or assisted. Use these occasions not only to congratulate the partners on their accomplishments but also to encourage everyone to stay connected.

Task 2: Reflect on the Project

Personal reflections can help each partner affirm their continued interest in the project and involvement in the partnership. Together, the group can explore what changes in the partnership might be useful by considering such questions as:

- What areas are working well?
- What areas need more work?
- What changes would improve staff training, volunteer training, resource development, the science and engineering curriculum, and administrative support?
- What is our next priority as partners?

Task 3: Refine the Project

After reflecting on your progress and soliciting feedback, you and your partners may identify aspects of the project that need to be modified. Just as you worked together to design the initial program, it is important to continue to work collectively to make the necessary changes. Involving stakeholders in reshaping the project demonstrates respect for their contributions, which can further strengthen your partnership and, ultimately, your project.

Your CRP can also help you research creative new after-school programming practices and science curriculums. As a professional in after-school programming, the CRP is probably knowledgeable about local and national groups interested in after-school programming and informal science learning. By incorporating the latest thinking about programming for children during their out-of-school time, you can make a strong case to funders about the importance of science in children's lives.

Reflections on DESIGN IT!

by St. Louis Science Center and After-School Program Partners

Everyone is pleased with Year Two. We have been able to look beyond the *Design It!* curriculum to thinking about larger issues that challenge community organizations, including the children, the staff, the institution, and the family. The curriculum continues to provide opportunities to learn from each other about creating effective programming in an after-school setting.

Good things about the project:

- Children get to build and experience new things, explain/share what they have learned
- Regular staff meetings with instruction, planning, and sharing
- Cross-training of staff as the kids from one CBO visit and work on a project with the kids at a partner after-school program
- Creation of a great team of program leaders
- Family kits

Needs met in the project:

- Learning strategies for encouraging teamwork among the kids
- Site visits to support programs
- Wonderful support from the curriculum developers throughout the project
- Support of one another and recognizing the value of the project as a group
- Start of work to improve family involvement
- Individual and teamwork benefits reached all children

Needs not met in the project:

- Need more family involvement
- Need to be able to sustain one group of kids through a six-week project
- Need more in-depth conversations about the needs of children
- Need more buy-in from administration at community organizations
- Need more consistent evaluation of sites

DESIGN IT! learning differs from short-term, hands-on activities because children have more chances to think about what they are doing and time to ponder the why's and how's.

DESIGN IT! seems more like an event than just another program activity.

Staff, After-School Program

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A science center and after-school program collaboration can offer children hands-on science activities as well as provide an opportunity for parents and volunteers who want to support children's interest in science.

Task 4: Involve Families, Volunteers, and Other Community-based Organizations

How to Involve Families

You may want to plan family events at the science center with input from the after-school program staff and the children. At these events, the children participating in the curriculum project can involve their families and friends in the hands-on activities. For some children and families, your event will be their first visit to the science center. Spend time on the telephone encouraging the after-school programs to invite all the families involved. Work with each program on the logistics: transportation, food, and clear directions about parking and public transportation. If possible offer an incentive to encourage attendance, such as T-shirts, mugs, and other science center products. Also invite the larger community, other parents, after-school providers, the press, and potential funders.

Alternatively, it may be more practical and beneficial to stage an event at each after-school center. Remember that the goals are to involve families and to recognize the children's efforts. An event at a familiar place may attract more families. For families that do not routinely pick up their child at the end of the day, this special event could represent a rare opportunity to visit the after-school site. ***Design It!* science centers found that involving families was one of the most difficult components of collaboration.** Don't get discouraged: remember that everything won't fall into place at once. Be sure to encourage the families that do participate to reach out to other parents.

The involvement of parents, guardians, and older siblings accomplishes the following:

- Enhances communication between program staff and parents/guardians.
- Enables programs to learn about particular families' needs with respect to cost, work schedules, transportation needs, and academic needs.
- Allows families to explain how the program can best serve their children.
- Offers opportunities for family members to get involved by sharing a skill or interest by volunteering.
- Encourages families to learn alongside their children, acquire new skills, and make new friends, and reassures them that their children are having fun at the after-school program.

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Continuing to Collaborate

Sustainability requires more than securing additional funding. There are several additional factors:

Creating the energy to continue

If the science project goes well, and the after-school staff, children, families, and other participants feel fulfilled and appreciated, they will likely want to continue the project. Their positive experience may motivate them to find new resources, volunteers, and participants.

Creating expertise

One of the most effective approaches in working with after-school staff is not only to train them, but also to train them to train others. This approach builds staff experience and confidence and ensures ongoing expertise to support program continuity and expansion.

Creating expectation

A successful science project can change people's expectations of what the after-school program is capable of offering and accomplishing in the future. Acknowledging that both staff and children enjoy long-term projects, teamwork, group discussions, and hands-on activities may influence other curriculum areas and practices. A successful project can also open up opportunities for working with other organizations, expanding the role of parents, and involving older youth and other community members.

Creating new activities

Funders are always looking for something new and exciting to support. One way to attract funds is to leverage your knowledge and experience to implement the same project differently—for example, with a different type of after-school program or a different age group of children. Several *Design It!* science centers that initially worked with community-based after-school programs are next planning to work with school-based programs. This change provides access to a different funding source and opens up the possibility of connecting after-school programming more closely with the school day.

Creating new partnerships

Once you and your current partners have succeeded with a project, other partners may want to join in or explore opportunities for new projects. Several *Design It!* science centers attracted new partners from both the after-school and science communities.

Connecting with Families

- Ask the after-school program to survey families regularly about how they think the program is going and what they'd like to see changed.
- Invite older children/siblings to apply for internships and special programs at the science center.
- Send the science center's newsletter to the after-school programs and to parents. Make sure that you receive each after-school program's newsletters too. You will learn more about the particular program and get ideas for integrating science with other program activities.

How to Involve Public Schools

Nationally, the number of school-based and school-operated after-school programs continues to increase. Principals recognize that, in addition to providing safe supervision, these programs contribute to children's academic and social success. Public school buildings can provide otherwise costly resources such as space, equipment, and access to staff, as well as lessen the need for transportation.

You may already have forged a relationship with the school district and/or a specific school involving field trips and professional-development workshops or summer institutes. Your partnerships with after-school program staff may encourage schools to include after-school program staff in school-sponsored workshops, and work on extending classroom curriculum topics to hands-on experiences in the after-school program.

How to Involve Volunteers

Some after-school programs may already have volunteers on board for other curriculum activities, while others may not want the extra work of recruiting, training, and supervising volunteers. It is essential when you set out to recruit volunteers to ask yourself the following questions:

- What expertise, experience, and personal characteristics are needed?
- Who could fulfill these roles and how can they be recruited?
- What support and training will be necessary?
- How and when will it be provided?
- Who will provide it?
- Who will supervise and evaluate the volunteers?

After you have addressed these questions to your satisfaction, compose formal job descriptions for volunteer positions. To promote professionalism and commitment, every volunteer should receive a job description, sign a contract, and participate in training.

Roles that volunteers can fill include:

- Club leader to facilitate a science and engineering club.
- Chaperone to accompany children and staff on field trips.
- Special event assistant to help with publicity, pick up supplies, prep materials, and help run the event.
- Administrative assistant to help organize monthly workshops, including picking up supplies, finding resources, and sending reminders to participants.

Not only are volunteers giving their time, they may also serve as role models who work with and/or are interested in science. There is a great deal of concern for children who reach high school and are not prepared to do well in science courses. Both exposure to science and encouragement from

adults are essential for children to continue an interest in science. A science center and after-school program collaboration can offer both hands-on science activities as well as young and/or older adult volunteers who want to support children's interest in science.

Task 5: Find New Sources for Funding

As a partner in a working collaboration, you are in a strong position to demonstrate the program's accomplishments to potential funders. You can search for funding in both the science center and after-school program arenas. At this point you may want to revisit the previous four challenges—recruiting, selecting, building relationships, and providing training and technical assistance—to reflect on what is working and what needs work.

Science Center Funding Sources

Notices about grants and other funding opportunities are regularly posted on the following Web sites:

- Association for Technology and Science Centers (ASTC) (www.astc.org)
- National Science Foundation (NSF) (www.nsf.gov)
- Institute for Museums and Librarie Services (IMLS) (www.imls.gov)

ASTC also offers publications and conference audiotapes on funding. National and regional conferences for science center educators often include sessions on fundraising.

After-School Program Funding Sources

Corporate and other funders are increasingly interested in investing in after-school programming for children, thereby creating a favorable funding climate. Notices about funding sources, grant application dates and procedures are regularly posted on several online discussion forums and electronic newsletters.

For example, **The National Institute on Out-of-School Time (NIOST)** provides links and information about funding and to **SAC-L**, a discussion list focused on after-school planning, resources, activities, funding, and staff development. (www.niost.org)

State Funding

The after-school coalition, state department of education, and the office that oversees licensing of after-school programs may know of other sources of funds earmarked for training after-school program staff. To find your state coalition go to www.nasaca.org.

DESIGN IT! Events in Which to Involve Parents

The St. Louis Science Center sponsored an annual Light's On event which attracted over 1,000 participants including teachers, after-school program staff, families and children, funders, the mayor, the superintendent of schools, and parks and recreation staff. In addition to the science center exhibits, children from after-school programs presented DESIGN IT! curriculum activities. This gave the children a chance to show off their talents, and involved the whole family and community.

Today, private and public sector attention is increasingly focused on providing safe, supportive places for children to spend their after-school time. This is particularly true in low-income communities where children are less likely to have access to effective schools or safe, constructive after-school activities.

DeAnna Banks Beane, *Dimensions*, November/December, 2000

Federal Funding

Federal funds targeted at informal learning and after-school programming include the 21st Century Community Learning Centers (21stCCLC), GEAR-UP, VISTA, AmeriCorps, and the Child Care and Development Block Grant (CCDBG). Information about federal grants can be found on an on-line database called *Finding Federal Dollars*, created to provide information on over 100 sources of federal funding for after-school and youth development programs. This database can be found at www.afterschool.gov.

Corporate and Foundation Funding

Many corporations and foundations fund projects that focus on science and informal after-school learning. The Foundation Center can provide information on foundations and corporate giving, at www.fdncenter.org.

Other Funding Strategies

Fee-for-service training

Consider charging a small fee to participants in training workshops and materials. Most after-school programs have budgeted for staff training; many states require a specific number of hours of staff training. Be careful, however, that fees do not become a barrier to non-traditional program staff.

Link with other science center programs

Resources from existing science center programs may contribute to the collaborative project. For example, the Science Museum of Minnesota forged such a link with its existing parents' program. The St. Louis Science Center expanded its offerings of kits to include a kit for parents interested in doing *Design It!* activities at home. The Baltimore Museum of Industry included *Design It!* activities in its annual Community Science Day.

Encouraging after-school programs to pool resources

Collaborations between two or more after-school programs to obtain materials and share staff and volunteers can also generate additional resources. After-school programs in Minnesota jointly purchased materials in bulk and shared staff to facilitate *Design It!* activities.

Connect with national organizations

NIOST is familiar with federal and state funding sources and knowledgeable about leaders in the field of after-school programming. It regularly posts information on its Web site that can help you link to these initiatives. (www.niost.org)

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National initiatives aimed at supporting informal science learning and/or after-school programming can also offer funding leads. For example, the American Association of University Women, at www.aauw.org.

Publicizing your project helps in recruiting volunteers, participants, and funders. It also educates the community about the importance of science, informal learning, and after-school programming, and highlights the science center's commitment to community outreach. Internally, be sure your science center newsletter, annual report, and board reports all highlight your collaborative partnership with after-school programs. Photographs have particular impact.

As you seek long-term funding, you will need to make the case for informal science learning in after-school. Obtaining funding calls for building awareness about the issue of science during out-of-school time and about your science center's ability to address the issue. Getting involved with professional organizations that are focusing on your issue can be beneficial. For example, the National Science Teachers Association (NSTA) encourages local corporations and institutions to support informal science learning in their communities. Ask NSTA to add your science center's project to its list of children's science programs during out-of-school time.

National events such as Lights On After-school, America Goes Back to School, and National Black Engineers Week offer opportunities to stage a public event. By getting your community to rally around key education issues such as expanding after-school and summer programs, and developing awareness of the pathways to careers in science, you can build greater public support for hands-on science and engineering activities after-school. Seek out organizations participating in these national events. Often the Web site for the national event provides information about local participants, ways to get involved, and outreach materials such as flyers and sample press releases. Highlight your project during events and invite the media. Reporters and editors respond best to timely news stories and ideas that include local interest, widespread appeal, and a local angle to a national issue.

How to Spread the News

- Write up a fact sheet outlining the "who, what, where, when, and why" of your project.
- Report to funders and other stakeholders.
- Submit articles to the newsletters of all partner organizations.
- Send press releases to local news outlets. Contact local and national advertising campaigns such as that of JCPenney which track after-school partnerships.

The NIOST Web site provides information and links to help you with the following tasks:

- Making the case for after-school programming
- Building awareness about informal learning during out-of-school time
- Sources of funding and tips on applying for funding
- Training on after-school program issues
- National initiatives focused on out-of-school time

www.niost.org

- Ask scientists, professional associations, local officials, and businesses to talk about your project to their peers.
- Approach local businesses for sponsorship. Offer to put their logo on your promotional materials if they will cover the printing costs.
- Submit a public service announcement of 30 to 60 seconds in length for local television and radio stations.
- Set up a Web page to spotlight your project and to provide sample activities.

Resources

Applying for Funding

Numerous tools and tips for grant writing, marketing your program, and approaching corporations are available on the Internet. Check out the following Web sites:

Connect for Kids Weekly, sponsored by the Benton Foundation. regularly compiles "Tips on Targeting the Best Funders."
(www.connectforkids.org)

J.C.Penney Afterschool Initiative is a partnership with the Boys & Girls Clubs of America, the YMCAs, and public schools to raise awareness and provide direct support of after-school programs.
(www.jcpenney.net/company/afterschool)

The Grantmanship Center helps nonprofit organizations and government agencies write strong proposals.
(www.TGCIgrantproposals.com)

The Finance Project is a national initiative to improve the effectiveness, efficiency, and equity of public and private sector financing for education, children's services, and community building and development. A growing list of publications on funding targeted at after-school programming is available on its Web site.
(www.financeproject.org)

The following *Design It!* tools are in Appendix B:

Implementing the Curriculum

How to Find Volunteers

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PARTNER

Baltimore Museum of Industry

Mission Statement

The BMI is a museum of the industrial, maritime, and labor heritage of Baltimore, Maryland and the Mid-Atlantic region. Established in 1981, the Museum educates the public—both children and adults—on the vital role of industry in the history, culture, and urban fabric of this area. The Museum inspires appreciation of the values and methods of work and people. The Museum is a unique community resource that preserves and collects objects, photographs, and documents, and creates interactive programs and exhibits that keep our industrial heritage alive for successive generations.

Community Outreach to After-School Programs

The Museum currently has no formal links with any after-school programs apart from our *Design It!* partners, but has close partnerships with two other non-profit organizations. The Downtown Sailing Club is a volunteer organization which runs community outreach programs to teach city children sailing, teamwork, and self-esteem. The second is the Maryland Center for Career and Technology Education Studies, which provides inservice training for Technology Education teachers.

Services Available to After-School Programs

- Weekend programs (including sleepovers) targeted toward Girl Scouts and Boy Scout groups.
- Summer camp, called Camp Widget, where children in grades 3-5 will be encouraged to discover how machines work.
- Picnic on the Harbor includes hands-on activities, lunch in our waterfront pavilion, a children's musical show, and a tour of the Museum.
- Weekday hands-on activities, including Assembly-Line, In My Neighborhood and Gallery Tours, which teach children about the world of work.

BMI also collaborates with the Engineering Society of Baltimore, and the Technology Education Association of Maryland, to run the Maryland Engineering Challenge program. This is a series of contests for groups of children in Grades 1-12, designed to introduce them to the role of the engineer in today's society. Groups of children work on projects for several months, bring them to the Museum to demonstrate, and engage in competitions. Each year over 800 children attend the Museum, while many more work on the projects at home or at school.

Baltimore Museum of Industry
1415 Key Highway
Baltimore, MD 21230
Phone 410-727-4808
www.thebmi.org

Science Center Staff
Margaret Leonard,
Special Programs Manager
Pat Richardson,
DESIGN It! Specialist

After-School Programs and Staff
Dundalk United Methodist
Child Care
- Addie Finn
- Laura Foust

Roland Park Elementary
After-School Program
- Kathleen Cain
- Tanya Harcum
- Adele Murry

Mary Frances Cunningham
Ministries
- Elizabeth Langmead
- Morgen Smith

Progressive Life Center at Waverly
- Sheila Roberts
- Garland Thomas

Play Keepers, Inc.
- Maxine Seidman
- Robert Smith
- Sharon Stenner

New Psalmist Christian School
- Betina High
- Patricia Brunson
- Adrienne Cooper

Community Resource Person (CRP)
Andrea Woodus

The Children's Museum of Boston
300 Congress Street
Boston, MA 02210
Phone: 617-426-6500
www.bostonkids.org

Science Center Staff
Tim Porter, Science Developer

After-School Programs and Staff
Brighton/Allston After School Enrichment (B.A.S.E.)
- Kenny Lee
- Madeline Wan

The Roxbury YMCA
- Luzia Centeio
- Maria Ortiz

The Little House
- Deb Chrisman
- Sateya Pritchard
- Ariel Martinez

Margaret Fuller Neighborhood House
- Gina Lopez
- Wendy Alcantara
- Steve Loudon

South Boston Neighborhood House
- Joanne Russo
- Shannon Tedeschi

Community Resource Person (CRP)
Maria Cabrera, Museum of Science
Marta Gredler, Parents United for Child Care (PUCC)

PARTNER

The Children's Museum of Boston

Mission Statement
The Children's Museum of Boston exists to help children understand and enjoy the world in which they live. As an early museum experience for children, our environment is informal, but our purpose is serious. We want children to grow up feeling secure and self-confident with respect for others and the natural world. We encourage imagination, curiosity, questioning and realism; we provide opportunities for new insights, involvement with the world and understanding of human differences. Central to our philosophy is the belief that real objects, direct experiences and enjoyment support learning.

Community Outreach to After-School Programs
The Children's Museum of Boston serves a culturally and economically diverse audience, primarily from the greater Boston area, but also from New England and throughout the country as well as in countries outside of the United States. The Museum provides resources and support for parents, works with teachers and community agency staff to extend the Museum's philosophy, and continues to thrive as a national research and development center exploring new methods of informal education, as well as new roles for museums.

Services Available to After-School Programs:
- Harcourt Teacher Leadership Center
- Kit Rental Program
- CATS: Culture, Art, Technology, Science

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PARTNER

Science Museum of Eastern Connecticut

Mission Statement

At our regional science center established in 1948, we provide a setting where the young and old from all walks of life create their own experience of exploration and discovery through interactive thematic science and pre-engineering learning programs.

Community Outreach

Science Education Travels Everywhere! brings hands-on experiments, exciting demonstration, and live animals to schools, libraries, and community organizations throughout Conn., Mass., and New York. All outreach programs are aligned with the Connecticut state science content and performance standards.

Science Center of Eastern Connecticut
33 Gallows Lane
New London, CT 06320
Phone: (860) 442-0391
www.scec.connell.edu

Science Center Staff
Peter Landry

After-School Programs and Staff
Drop in Learning Center
Sharon LaGrone
Imagine That Learning Center
Jill Bonomo-Durkin
Beth Boutauth
The BP Learning Mission
Bunny Chester
The Waterford YMCA
Thad Widmer
Shawon Moncrief
The Shiloh Baptist Church
Sharon LaGrone

Community Resource Person (CRP)
Sherry Kanode

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Science Museum of Minnesota
120 Kellogg Blvd.
St. Paul, MN 55102
www.smm.org

Science Center Staff
Mary Ann Steiner, Director, Youth Science Center (YSC)
Kit Wilhite, Director, Youth & Family Programs
Catherine Denison, YSC Community Science Coordinator
Tracy McMann, Materials Coordinator
Dao Lor, YSC
Simone Gbolo, YSC
Debra Brandenburg, YSC

After-School Programs and Staff
A.C.E.S. (Athletes Committed to Educating Students) Program at Maxfield School and Powderhorn Elementary School
Joe Kalugdan
Debra Moore
Capitol View Apartments
Waheedah Shabazz-Butler
Saleemah Shabazz
Frogtown's Leap Forward for Children
Tzy Lee Ya

(cont on p. 57)

PARTNER

Science Museum of Minnesota

Mission Statement

The mission of the Science Museum of Minnesota (SMM) is to invite learners of all ages to experience their changing world through science. SMM is actually a hybrid of two kinds of museums; it is both a natural history museum with scientific research, collections, and interpretive exhibits, and a science/technology center with innovative interactive exhibits and a hands-on learning approach.

Over the past three years, SMM has averaged 1.1 million annual participants. This number includes both regular museum visitors and participants in on- and off-site programs for families, adults, and youth including weekend and after-school classes, adult lectures, employment and volunteer programs for teens, programs at the museum's Warner Nature Center, summer camps, and computer courses.

In December of 1999, the museum opened a new state-of-the-art $100 million, 400,000 square-foot facility overlooking the Mississippi River in downtown St. Paul. The public response to the new museum has been very positive, setting attendance records and bringing the museum unprecedented public exposure.

The Museum has aimed to:

- Network with statewide organizations through outreach, collaborative programming, and resource sharing.
- Create a public space that is a gathering place for communities.
- Help strengthen the social and economic health of the city and the region.
- Be a welcoming place for young people, low-income individuals and families, and people of diverse cultures and abilities.
- Work for long-term, trusting relationships and partnerships with cultural and neighborhood communities, utilizing advisory councils to help us in this effort.
- Reflect the richness and diversity of multi-cultural traditions in our exhibits, programs, trustees, staff, and volunteers.

Community Outreach to After-School Programs

The Youth Science Center (YSC) represents SMM's comprehensive commitment to attract and sustain programs for under-served urban youth, particularly girls and young people of color. During its early development, the YSC was cited as a national model of a museum-based youth program that has successfully meshed with its parent museum program. YSC programs are broken into four categories: Explainer Programs, Projects Club, Field School, and Community Science.

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Services Available to After-School Programs

- Resource Center
- YSC Library and the Experiment Gallery Library to research ideas for activities
- Frogtown's Leap Forward for Children has an extensive library of materials including vans, books, money for special field trips, and materials for partner organizations
- Rental kits
- "Trunk training" for our community partners
- Museum staff teach week long classes at community sites during the summer

Youth Science Center programs regularly take their projects out into the community to share with youth in various neighborhoods. Community-Based Organizations are integrally involved in the SMM's special event days. Youth from a wide variety of inner city schools, after-school programs, and community centers visit the museum at these times. The youth are not only visitors, but are actively involved in presenting to the public at these events. Community-Based Organizations also visit the SMM regularly through the museum's weekly overnight Camp-Ins, summer day camps, and through individual, year-round programs such as the Bioneers.

(cont from p. 56)

Hmong Chicana Latina Education Enrichment Program (HCLEEP)
Gaoib Xiong

Imani Family Services
Muhammed Okoya-Lawal

Martin Luther King's Hallie Q. Brown Community Center
Mildred Bronson

Model Cities Learning Center
Patricia Butler Williams
David McRoy
Shukree Said

Project Spirit- Redeemer Lutheran Church
Rev. Paulette Adjuvon
Rev. James Erlandson
Angel Thomas

Salvation Army/Ober Community Center
Tony Scheuerman
Ebbie Van Scouten

West Seventh Community Center
Krista Karnes

Young Women's Mentoring Program
Chue Xiong

Community Resource Person CRP
Stacey Dahlstrom, Minnesota School-age Care Alliance (MNSACA)

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The Pittsburgh Children's Museum
10 Children's Way
Pittsburgh, PA 15212
Phone: 412-322-5058
www.pittsburgkids.org

Science Center Staff
Lois Winslow, Director of Education
Tracy Howe, Coordinator and Trainer

After-School Programs and Staff
Allegheny YMCA
- Jacqueline Thomas

Braddock Carnegie Library/Community Center
- Cynthia Elk
- Leslie Neil

Emanuel Community Christian After-School Program
- Stacia Swanson

Mount Ararat Community Center
- Elaine Edwards
- Soyina Williams-Johnson
- Charles Gladney

Urban Impact Foundation
- Sharon Washington
- Audrey Craig
- Jamie Kisner
- Connie DeVore

Prospect Middle School YMCA Program
- Jaclyn Barbour
- Ed Cook
- Loretta Bruce
- Monica Ranii

Community Resource Person (CRP)
Sharon Schweninger, Director
- MT. Lebanon Extended Day Program

PARTNER

The Pittsburgh Children's Museum

Mission Statement
The mission of the Pittsburgh Children's Museum is to nurture children's innate joy, creativity, and curiosity. We provide developmentally appropriate exhibits, programs, and opportunities for play both inside and outside the Children's Museum. We serve as a resource for families and build meaningful partnerships with schools and community groups.

Community Outreach to After-School Programs
The Pittsburgh Children's Museum is committed to interactive, inquiry-based education that is inspired by children's need to make sense of the real world in which they live. After-school programming has been an integral part of this mission to serve children. The Youth Alive Initiative, funded by the DeWitt-Wallace Fund through the Association for Science and Technology Centers (ASTC), became our foundation for serving youth during after-school hours within the Museum. This tradition continues to thrive. Our initial collaboration for that grant was with the nearby Carnegie Science Center. However, long before this initiative, the Children's Museum supported a thriving after-school scout workshop program and an innovative outreach series class program. Many of those workshops and classes primarily offered art experience. Science through art activities were fee-based.

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PARTNER

St. Louis Science Center

Mission Statement
To stimulate an interest in and understanding of science and technology throughout the community.

Community Outreach to After-School Programs
The President and the Board of Commissioners are extremely supportive of collaborations that target audiences traditionally overlooked by museums and cultural institutions. One effective way to work with these audiences is by creating after-school programs. The St. Louis Science Center has formed close community ties for support and collaborations, and has developed specific programs to address needs. These include:

Youth Exploring Science (YES), a work-based training program for teens that recruits teens from the community. After learning job skills and receiving science training, they help teach hands-on science classes at community organizations. While the Youth Alive! Initiative provided the original funding, the Science Center's operating budget now covers basic program costs; other funders and endowments cover additional costs.

Family Math and Science Program, offered in the evening to families with funding from the the local public school district. This is one of several collaborations with the 21st Century Community Learning Centers schools.

"GEAR UP" a U.S. Department of Education grant that funds collaboration between the Science Center and 12 community agencies. About 900 middle and high school students are tracked through programming offered both in school and out of school. The Science Center offers professional development on challenge and inquiry-based science curriculum.

Fee-based programs at the Science Center, such as day camps and overnight camp-ins, as well as those targeting scouts and home schooling families.

Support for numerous after-school programs coordinated with community organizations, including Girls Inc., Boys & Girls Clubs, YWCA, 21st Century Community Learning Center sites, and several community education centers linked to local public schools.

St. Louis Science Center
5050 Oakland Ave.
St. Louis, MO 63110
Phone: 314-533-8784
www.slsc.org

Science Center Staff
Diane Miller, Senior Director of Public and Community Programs
Elana Yellen, Community Science Supervisor
Lance Cutter, Staff

After-school Programs and Staff
Beyond Housing—Castlepoint Family Support Center
Bobbie Small
Beyond Housing—Pagedale Family Support Center
Michelle Mitchell
Girls, Inc. of St. Louis
Rhonda Ford
Victoria Nelson
Herbert Hoover Boys and Girls Club
Marvin Crumer
Flint Fowler
Lighthouse Outreach Center
Phil Bogear
Josh Hellman
YWCA
Gywanna Roby-Jackson
Andrenette Fields
Kee-Kee Griffin

Community Resource Person (CRP)
Kathryn Nelson

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Education Development Center, Inc. (EDC)
55 Chapel Street
Newton, MA 02458
Phone: 617-969-7100
www.edc.org

EDC Staff
Bernie Zubrowski,
Senior Scientist
Charlie Hutchison,
Research Associate
Catherine McCulloch,
Research Assistant

PARTNER

Education Development Center, Inc. (EDC)

Education Development Center, Inc. (EDC), is one of the world's leading nonprofit research and development organizations. Dedicated to promoting human growth through education, EDC creates and administers innovative projects around the world.

EDC's Center for Science Education (CSE) hosts a collection of exciting projects aimed at improving and supporting science education nationwide. Projects focus on the following areas: professional development and technical assistance; preK–12 curriculum development; development of science instructional materials specifically for after-school programs; and research projects with the goal of providing useful, practical information to educators engaged in education reform.

Bernard (Bernie) Zubrowski is a senior scientist at EDC, and was principal investigator of the project *Design It! Engineering in After School Programs*. He has published 16 children's books, 8 of which focus on technological topics. He was principal investigator for the curriculum program *Models in Technology and Science*, which resulted in the development of eight extended investigations, and worked on *A World in Motion II*, which presents three engineering challenges for middle school students. Bernie designed eight exhibits for The Children's Museum of Boston; these exhibits traveled to science centers in the United States through a program of the Association of Science and Technology Centers.

Charles (Charlie) Hutchison is a research associate at EDC. In *Design It!*, he helped develop and disseminate design and construction challenges for children in community centers throughout the U.S. His other EDC work involved presenting workshops on inquiry teaching and other aspects of implementation of research-based instructional materials. Before coming to EDC, Charlie spent three years at TERC in Cambridge, Mass., developing curricula to enable middle and high school students to use the Internet to collect and analyze data related to real-world science issues. He is the prime operator of Kids' Institutes for Discovery, Inc., a nonprofit organization dedicated to promoting and offering inquiry-based learning in formal and informal settings. Before entering the educational research world, Charlie taught elementary and middle school for 10 years.

Catherine McCulloch is a research assistant at EDC. Besides helping in the development of and illustrating the *Design It!* curriculum, she also works on the Middle Grades Science Mentoring Program. Catherine has over 15 years experience teaching in a variety of settings, private and public.

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PARTNER

National Institute on Out-of-School Time (NIOST)

National Institute on Out-of-School Time
Center for Research on Women
Wellesley College
106 Central Street
Wellesley, MA 02481
Phone 781-283-2547
www.niost.org

NIOST Staff
Ellen Gannett, Co-Director
Lillian Coltin, Project Associate
David Alexander, Training and Curriculum Specialist

Our mission is to ensure that all children, youth, and families have access to high quality programs, activities, and opportunities during non-school hours. We believe that these experiences are essential to the healthy development of children and youth, who then can become effective and capable members of society. Our work bridges the worlds of research, policy, and practice.

For 23 years, the National Institute on Out-of-School Time, at the Center for Research on Women at Wellesley College, has successfully brought national attention to the importance of children's out-of-school time, influenced policy, increased standards and professional recognition, and spearheaded community action aimed at improving the availability, quality, and viability of programs serving children and youth. NIOST's varied initiatives have moved the field forward using three paths:

- Research, Evaluation and Consultation
- Policy Development and Public Awareness
- Training and Curriculum Development

From its inception, much of NIOST's work has encompassed projects of national scope and influence, many representing "firsts" for the field. A few examples include: the seven-year, systems-building, MOST Initiative; the National Cross Cities Network for Leaders of Citywide After-School Initiatives; the Boston and San Jose 4Quality Initiatives on Balanced Programming; a collaboration on a comprehensive national study of before- and after-school care programs for the U.S. Department of Education; the creation of the National Quality Standards and ASQ self-study process; and provision of nation-wide training and technical assistance on after-school programs for the Corporation for National Service. Many other NIOST projects have involved regional and state-wide efforts.

NIOST is part of the Wellesley Centers for Women at Wellesley College. The Wellesley Center for Research on Women and the Stone Center for Developmental Services and Studies are united in a joint mission to educate, inform, and expand our knowledge of women's lives. It is home to an interdisciplinary community of scholars and theorists engaged in action, research, theory building, publication and training.

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APPENDIX B

TOOL

Design It! Engineering in After School Programs

For updates on the DESIGN IT! Curriculum and for training on implementing extended design engineering projects in after school settings, contact:

Catherine McCulloch
Education Development Center, Inc.
55 Chapel Street
Newton, MA 02458
Phone: 617-969-7100
www.edc.org

The* Design It! Engineering in After School Program *includes 16 activity guides:

- Balls and Tracks
- Gliders
- Paper Bridges
- Spinning Toys
- Straw Rockets
- Pinballs
- Cranes
- Rubber Band Powered Cars
- Trebuchets
- Blinking Lights
- String Telephones
- Cardboard Constructions
- Balloon-powered Cars
- Sand and Water Clocks

These extended design engineering activities challenge children to build and refine working models of small machines and toys over a period of 3-6 weeks. While engaging in the activities, children gain experience in design engineering, physical science, problem solving, experimentation, and collaboration as well as practical familiarity with a wide range of safe, inexpensive, and commonly available construction materials.

The *Design It!* guides are published by Kelvin. Materials for the activities can be ordered from Kelvin at:

Kelvin
280 Adams Blvd.
Farmingdale, NY 11735
Phone: 1-800-535-8469
1-631-756-1750
Fax: 1-800-756-1025
1-631-756-1763
www.kelvin.com

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TOOL

Observation of an After-School Program

Program: _____ Date of Visit: _____
Director: _____ # Children: _____ # Staff: _____
Telephone: _____ Ages of Children: _____

What might you see when you visit an after-school program? Here are a few features of a good program:

Program

- O Everyone uses respectful language.
- O Adults respond to children with interest and understanding.
- O Staff share the languages and cultures of the children.
- O There is enough staff for children to get one-on-one attention from adults.
- O Space is well planned, perhaps divided into areas. It is comfortable and well lit.
- O There are outdoor as well as indoor play spaces.
- O A variety of activities meet the needs of each age group.

Children

As you watch children make use of a good after-school program, you are likely to see the following:

- O Children are absorbed in what they are doing.
- O They look busy and productive.
- O Children express themselves freely, without fear of teasing or punishment.
- O For the most part, children treat each other with kindness.
- O Children understand the rules; ideally, they have helped create the rules.

Staff

After-school program staff are key to the program's excellence and its most important feature. The best caregivers:

- O Have patience, confidence, and skills.
- O Like to have fun with children.
- O Know how to set limits.
- O Are well organized.
- O Can be flexible.
- O Inspire respect and show respect for others.
- O Encourage children to solve their own problems and find answers to their own questions.
- O Are good listeners and respond appropriately to children's questions, comments, and ideas.

Remember that you are a **guest** at the program. Be respectful of the staff, who may be nervous or uneasy about being observed. Put your clipboard aside. Assure the staff that you are looking for **strengths** that the program can bring to the partnership.

It is best to keep your tone **informal** but have definite questions in mind. Immediately after your visit, fill out this checklist or make notes on the strengths of the program and any additional **questions** you have. You may want to supplement yes/no answers with notes about the frequency of the behaviors or characteristics in question. You can use a scale, but anecdotal **notes** may be more helpful.

The **answers** to these questions will help you to plan your work together and to **identify** topics you may want to focus on during workshops and future site visits. For example, if the difficulty of effectively facilitating activities for small groups of children arises, you may want to schedule a workshop **demonstration** of effective techniques for use in science activities.

Notes:

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TOOL

Questionnaire for Directors of After-School Programs

Both before and during your site visit, it is important to ask the after-school program director a series of questions pertinent to your selection of appropriate partners. The questions listed in the Questionnaire tool on this page are some of those asked by the DESIGN IT! Science centers.

Program

- What is the parent or sponsoring organization (e.g., a YMCA, a religious organization, a public school, or a social service agency)?
- How long has the after-school program been operating?
- What activities does the program currently offer?
- Which activities are most popular with the children?
- Do you currently offer science and engineering activities? If so, please describe them.
- What are the demographics of the children and families served?
- How involved are the parents?
- What is the program schedule (daily, weekly, yearly)?
- Does the program have adequate space so the children could engage in the science curriculum without being interrupted?

Staff

- What are the educational backgrounds and interests of the staff who work with the children?
- What special skills do they bring to the program?
- What is the staff-to-child ratio?
- Can a staff person be assigned to facilitate the *Design It!* who will be able to attend all the training workshops?
- What is the turnover rate of the line staff and administration?
- Who will handle implementation of the activities if one or both of your designated staff members leave?

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- Will staff be able to train other after-school program staff in the *Design It!* curriculum when the science center training is completed?
- Does the program have volunteers?

Partnership Issues

- How familiar are the program director and staff with the science center?
- Is the program, or has the program been, involved in other collaborations?
- Can the program commit to the amount of time needed for the planned activities?
- What questions does the director have about the partnership?
- What does the director hope to gain from this project for the program, the participating staff, the children, and the parents?
- How does the director believe the program and staff can contribute to this partnership?
- Does the program have any characteristics or issues that could constrain full participation in the project?
- What steps does the program need to take to decide whether to participate in this project?

Notes:

TOOL

After-School Program Schedule

for a Typical Week

In order to ensure that the after-school program has enough time to carry out the activities you have planned, it is important to understand the daily schedule. Also, many programs operate in a different format during school holidays and summer vacation.

Notes:

Program: _____ Date of Visit: _____
Director: _____ # Children: _____ # Staff: _____
Telephone: _____ Ages of Children: _____

Vacation schedule: _____
Summer program: _____
Dates program is closed: _____
Staff hours available for training: _____

Monday	Time				
	Activity				
Tuesday	Time				
	Activity				
Wednesday	Time				
	Activity				
Thursday	Time				
	Activity				
Friday	Time				
	Activity				
Saturday	Time				
	Activity				

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TOOL

Sample After-School Program Profile Form

After-School Program Characteristics	After-School Program 1	After-School Program 2	After-School Program 3
Demographics of the children and families served			
Program mission			
Groupings of children (by age, gender, and other characteristics)			
Current adaptations to special needs of children (including nonreaders, children with ADD/ADHD, and other needs)			
Program's current schedule, activities, and commitments			
Staff background			
Floor plan of the space, including furniture and equipment (Attach a sketch.)			
Special characteristics of the program			
Flexibility to change the program's features			

As you recruit after-school programs for your project, compile information in a format that makes it easy to compare your selection criteria with each program's strengths.

Notes:

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Notes:

TOOL

Sample Letter of Agreement

This agreement is between ***SCIENCE CENTER***
and ***COMMUNITY-BASED AFTER-SCHOOL PROGRAM***

The time frame for this project includes three school years: ***DATES***

The following considerations and conditions apply:

Partner Sites Roles and Responsibilities:

Design Challenge Programming

- Provide at least one designated staff person to serve as the organizational leader throughout the project (for at least one school year term, ideally longer).
- Provide a dedicated group of youth participants (ideally, the participants should not change more frequently than each semester).
- Provide a designated space for the program to take place and for storage materials.
- Provide a regular program for youth participants at least two times per week.

Staff Development

- Allow staff release time to attend monthly training at the science center (or other partner site).

Accounting and Reports

- Provide receipts and accounting forms to science center for financial reporting.
- Submit reports for children's participation, dates of activities, training attended and a narrative about the program impact at your site in order to fulfill grant requirements.
- Receive two installments of staff stipend funds.

Science Center Staff Role:

Training and Relationships

- Conduct monthly staff development meetings for program leaders with the support of NIOST, EDC, Campbell/Kibbler Evaluation and Design Challenge Team members.
- Communicate with partners by mail, phone, and monthly site visits to provide on-going support in science, technology, program logistics, and activity facilitation strategies.
- Gather ideas for monthly training from collaborative members.
- Hold at least one special event day each year at the science center for collaborative partners and their participant families.
- Coordinate travel arrangements, a member from each agency to attend the national meetings in years two and three.

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Best Practices and Reporting

- Provide details and suggestions of best practices from the city team to help in development of activities in design and technology for the final collaborative manual.

Budget

- Serve as a fiscal agent for the project, and provide an annual financial report
- Offer a payment per site for staff stipend on ***DATE*** with program report of activities to date including participants records, program dates, training participation and a narrative about the project at your site.
- Provide for consumable materials and for equipment at each site on ***DATE*** .
- Provide technical assistance in finding materials as needed.

National Contacts

- Maintain communication with NIOST, EDC, Campbell/Kibbler and other science center partners in order to gather relevant materials for our partners.
- The science center will provide information to national partners about program activities, best practices, and final annual reports.

This agreement contains all of the conditions between the science center and each partner regarding the *Design Technology in After-School Programs Project*. Any amendments must be made in writing.

Name	Name
_____	_____
Title	Title
_____	_____
After-School Program	After-School Program
_____	_____
Address	Address
_____	_____
_____	_____
_____	_____
Signature	Signature
_____	_____
Date	Date
_____	_____

Notes:

Notes:

TOOL

Homework Reflection Form

for After-School Program Staff

1. What ideas have you tried to implement since the last workshop?

2. How did the children and staff react to the activity? Be specific. Think about new learnings, level of excitement/reluctance, changes in behavior and/or attitude.

3. What positive outcomes resulted from your efforts? Think about what worked well and what you accomplished. Consider the program, children, other staff, supervisors, and parents.

4. How can you sustain what worked well? Consider ways to build on staff and program strengths, reinforce positive outcomes listed above, and make lasting improvements in the program and staff practice.

5. What challenges arose that made implementation difficult?
   Challenges that staff can directly influence:

   _____

   Organizational /systemic challenges:

   _____

6. What steps did you take to address these challenges?

7. What steps can you take in the future to address these challenges in a sustainable way?

8. Create an action plan to sustain positive changes and address challenges. Indicate specific steps, the point person for each task, and a timeline for completion.

Next Step	Point Person	Completed By Date

(Source: Boston 4Quality Homework Reflection Form, Parents United for Child Care)

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Implementing the Curriculum

A Model Approach to Planning

One method to evaluate what is working well with the project, and what areas need adjustment, is to reflect as a group on the following questions:

1. When the *Design It!* curriculum works well, what after-school program strengths help to make it happen? For example: the space is right; staff are well prepared.

2. When the *Design It!* curriculum is not successful, what program issues get in the way?

3. Generally, when you are having a good day at your after-school program, what program strengths help to make it happen?

4. When the day feels more chaotic, what program changes could help? Be sure to include issues that have administrative implications, such as staff turnover, lack of training, lack of agency support.

Now that you have looked at both a good day and a chaotic day, brainstorm the following:

Ideas to increase your successful days:

Solutions to better manage chaotic days:

Notes:

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DESIGN IT! Site Visit Form

Observer: _____

Date: _____

Activity Name: _____

After-School Program: _____

Staff Leading the Activity: _____

Group Description: _____

Total Number of Children Engaged in Activity: _____

Ages of Children: _____

Number of Girls: _____ Number of Boys: _____

1. Are the staff able to follow the directions from the curriculum guide?
   O Y O N
   If no, which directions did the staff have trouble following?

2. Was there enough time to do the activity?
   O Y O N
   If no, which parts, if any, of the activity could be cut?

3. Which children were most involved in the activity? What were they doing?

4. Which children were least active?

   Were they primarily girls? O Y O N
   Were they primarily younger children? O Y O N
   What, if anything, did the staff do to encourage these children to participate?

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What, if anything, did staff or other children do that might have discouraged some children from being actively involved?

5. Were there any discipline issues? O Y O N
   If yes, please describe how the discipline issues were handled.

6. What design information did the children gain by doing this activity? Give specific examples to "justify" your response.

7. When the children ask the staff questions or for "help," do staff tend to give answers immediately? O Y O N

   If no, do the staff tend to encourage the children to find the answers themselves? O Y O N
   If yes, give some examples.

8. During the observation, did the children draw any inaccurate conclusions?
   O Y O N
   If yes, how did the staff deal with it?

9. What support can you offer to the staff and to the overall program to improve?

Additional comments, concerns, stories:

TOOL

How to Find Volunteers

When recruiting volunteer organizations, be sure to point out what the science center/after-school partnership can offer them:

- Meaningful placements for volunteers.
- Opportunities to encourage science learning among school-age children and volunteers who are teens and college students.
- Opportunities for positive publicity.
- Opportunities to further the mission of their organization.

Look for the following organizations in your local telephone book. Call the 1-800-555-1212 information line to get a national number for the organization so that you can call and find out about local chapters.

- **Volunteer Center, Points of Lights Foundation,** www.pointsoflight.org
- **Governor's Community Service Commission connections to AmeriCorps,** www.americorps.org
- **State headquarters of the Corporation for National Service connections to Senior Service Corps programs,** www.cns.org
- **The National One-to-One Mentoring Partnership,** www.nentoring.org
- **Partnership for Family Involvement in Education,** http://pfie.ed.gov/
- **Colleges and universities—community service and/or service-learning offices, work-study departments, career-placement offices, faculty and alumni associations**
- **Middle schools and high schools whose students are expected to perform community service to graduate**
- **Teachers, parents, and volunteer coordinator at public schools**
- **After-school parents and their friends/neighbors**
- **Retired teachers**
- **Senior citizens' groups**
- **Church groups**
- **Community centers**
- **Neighborhood associations**
- **United Way**
- **Nonprofit organizations that match volunteers with children and youth, such as Big Brothers/Big Sisters, tutoring and mentoring organizations**
- **Local chapters of national volunteer groups such as the Lions Club, Kiwanis International, and the League of Women Voters**
- **Professional organizations for scientist and engineers**
- **Teens that volunteer at the science museum and are trained to work with community groups**
- **Science center staff members such as grant writers and membership and development staff. Some science centers offer their employees the opportunity to volunteer in the community, especially if their job does not ordinarily include this outreach role. This "real world" experience at an after-school program may in fact help science center staff members such as grant writers and membership and development staff with their own day-to-day work at the science center**

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Web Site Directory

Accountability and Outcomes

Evaluating the National Outcomes Provides conceptual frameworks for evaluating child, youth, parent/family, and community outcomes.
Youth:
(http://ag.arizona.edu/fcr/fs/nowg/ythindexintro.html)
Children:
(http://ag.arizona.edu/fcr/fs/nowg/introchil.html)
Community:
(http://ag.arizona.edu/fcr/fs/nowg/comm_index.html)
Parent/family:
(http://ag.arizona.edu/fcr/fs/nowg/pf_index.html)

Four-fold Youth Development Model provides data analysis services and evaluation instruments to help measure the impact of youth programming.
(http://www.four-h.purdue.edu/fourfold/pass.htm)

The Harvard Family Research Project's Out-of-School-Time Evaluation Database profiles both large and small out-of-school time evaluations. Each profile contains an overview of the out-of-school time program or initiative that was evaluated, as well as detailed information about each evaluation report produced about that program. Electronic links to actual evaluation reports, where available, are also provided, as are contacts for program directors and evaluators.
(http://www.gse.harvard.edu/%7Ehfrp/projects/afterschool/evaldatabase.html)

Promising Practices in Afterschool is an initiative whose goal is to increase the quality and quantity of after-school programs by promoting programmatic, organizational, and interpersonal promising practices. The Web site offers a searchable database of a range of promising practices in after-school.
(http://www.afterschool.org/index.cfm)

National Organizations and Initiatives

Adolescence Directory On-Line (ADOL) is an electronic guide to information on adolescent issues. Educators, counselors, parents, researchers, health practitioners, and teens can use ADOL to find Web resources for topics concerning adolescents.
(http://education.indiana.edu/cas/adol/adol.html)

After School @ HFRP, an initiative of the Harvard Family Research Project, works to identify areas of challenge and opportunity in the emerging after-school field. Through this initiative, the Harvard Family Research Project builds on its expertise in evaluation and knowledge development to improve evaluation work and promote greater conversation and knowledge-sharing about evaluation among practitioners, policy-makers, funders, researchers and evaluators in the after-school field.
(http://www.gse.harvard.edu/~hfrp/projects/afterschool.html)

Afterschool Alliance is an alliance of public, private, and nonprofit groups committed to raising awareness and expanding resources for after-school programs. Initiated and currently coordinated by the C.S. Mott Foundation, the Alliance grew out of a partnership between the Foundation and the U.S. Department of Education.
(http://www.afterschoolalliance.org)

Center for Youth Development and Policy Research (CYDPR) The Center's mission is to create and strengthen the infrastructures that support positive development for all youth in America. Activities include public education, research, policy formulation, and technical assistance aimed at U.S. communities which seek to expand opportuni-

ties and support systems for disadvantaged young people.
(http://www.aed.org/us/youth.html)

Center for Social and Emotional Education is a nonprofit, international organization that helps youth prepare for healthy, responsible, and productive lives by using social and emotional education to help transform problems into opportunities. It also provides parents and educators with resources and tools that promote social and emotional skills and knowledge in our children and adolescents. (http://www.csee.net)

Child Care Aware is a nonprofit initiative whose mission is to ensure that every parent has access to good information about finding quality child care and resources in their community, through national consumer marketing and by raising visibility for local child care resource and referral agencies.
(http://www.childcareaware.org)

Child Trends is a nonprofit, nonpartisan research organization dedicated to studying children, youth, and families through research, data collection, and data analyses.
(http://www.childtrends.org)

Corporation for National Service (CNS) provides information on federal programs that benefit children and youth such as AmeriCorps, Learn & Serve, America Reads, and National Service Scholarships.
(http://www.nationalservice.org)

CYFER-net, or Children Youth Family Educational Research Network, provides hundreds of complete on-line publications featuring practical, research based information on children, youth, and families.
(http://www.cyfernet.org)

Families and Work Institute is a nonprofit organization that addresses the changing nature of work and family life. It is committed to finding research-based strategies that foster mutually supportive connections among workplaces, families, and communities. (http://www.familiesandworkinst.org)

Forum for Youth Investment is a national initiative dedicated to increasing the quality and quantity of youth investments and youth involvement in United States by promoting a big picture approach to planning and policy development. Its goal is to create strategic alliances among the full range of organizations that invest in youth.
(http://www.forumforyouthinvestment.org)

The Innovation Center for Community and Youth Development's network of youth and adult staff and partners seek, test, and promote innovative concepts and practices, providing cutting edge tools for youth workers in diverse settings.
(http://www.theinnovationcenter.org)

4-H Council works to advance the 4-H youth development movement to build a world in which youth and adults learn, grow, and work together as catalysts for positive change. 4-H serves youth through a variety of methods including organized clubs, school-enrichment groups, special interest groups, individual study programs, camps, school-age child care programs and instructional television programs.
(http://www.fourhcouncil.edu)

The Future of Children is a journal published by the David and Lucile Packard Foundation whose goal is to disseminate timely information on major issues related to children's well-being, with special emphasis on providing objective analysis and evaluation, translating existing knowledge into effective programs and polices, and promoting constructive institutional change.
(http://www.futureofchildren.org)

Girls Inc. is a national nonprofit youth organization dedicated to inspiring all girls to be strong, smart, and bold. For over 55 years, Girls Inc. has provided vital educational programs to millions of American girls, particularly those in high-risk, underserved areas. (http://www.girlsinc.org)

HandsNet is dedicated to building the human services community on-line. Their new site provides daily headlines and action alerts from members, as well as information on the WebClipper service and expanded Training capabilities. WebClipper automatically searches Web sites identified by experts in your field and ensures you never miss developments or resources vital to your work. (http://www.handsnet.org/index.htm)

National Association for the Education of Young Children (NAEYC) is the nation's largest organization of early childhood professionals and others dedicated to improving the quality of early childhood education programs for children birth through age eight. (http://www.naeyc.org)

National Association of Child Care Professionals' (NACCP) mission is to provide leadership to those who build learning communities in response to individual and community needs. It does this by providing its members with national and regional training conferences and workshops; specialized periodicals, publications, and products; opportunities for peer support and networking; and information and referral services.
(http://www.naccp.org)

National Association of Resource and Referral Agencies (NACCRRA) is the national network of community-based child care resource and referral agencies. The organization is a common ground where families, child care providers, and communities can share information about quality child care. (http://www.naccrra.org)

National Black Child Development Institute (NBCDI) advances a multi-faceted agenda to promote and protect the well-being of all African-American children. NBCDI's wide range of programs respond to the necessity to replace the one-size-fits-all, deficit-oriented paradigm with initiatives that serve children based on their strengths

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and needs. (http://www.nbcdi.org)

National Child Care Information Center (NCCIC) was established to complement, enhance and promote child care linkages and to serve as a mechanism for supporting quality comprehensive services for children and families through dissemination and outreach. (http://www.nccic.org)

National Information Center for Children and Youth with Disabilities is the national information and referral center that provides information on disabilities and disability-related issues for families, educators, and other professionals. Our special focus is children and youth (birth to age 22). (http://www.nichcy.org)

National Latino Children's Institute (NLCI) NLCI develops public education campaigns that create awareness of the needs and potential of Latino children. NLCI provides training and technical assistance on programs and policies that value young Latinos and help build healthy communities. (http://www.nlci.org)

National League of Cities (NLC) provides a wide range of programs and services to strengthen the ability of city officials to serve their communities. The Institute for Youth, Education, and Families (YEF Institute) was launched in January 2000 as a special place within NLC to strengthen the capacity of municipal leaders to enhance the lives of children, youth, and families. (http://www.nlc.org)

National Network for Child Care (NNCC)'s goal is to share knowledge about children and child care from the vast resources of the land grant universities with parents, professionals, practitioners, and the general public. (http://www.nncc.org)

National Resource Center for Health and Safety in Child Care includes information on state regulations for child care centers, plus extensive links on specific health and safety issues. (http://nrc.uchsc.edu)

National School-Age Care Alliance (NSACA) is a national membership organization whose mission is to support quality programs for school-age children and youth in their out-of-school hours. Established in 1987, NSACA provides an umbrella organization to link people who work with school-age children and youth in a wide variety of agencies and settings. (http://www.nsaca.org)

The National Service-Learning Cooperative Clearinghouse, is a searchable database offering information and resources to individuals and programs engaged in service-learning. (http://www.servicelearning.org)

National Youth Development Information Center (NYDIC) provides practice-related information about youth development to national and local youth-serving organizations at low cost or no cost. (http://www.nydic.org)

SAC-L listserv is an electronic discussion list that joins e-mail users in a world-wide discussion of issues in school-age care (co-sponsored by NIOST and ERIC/EECE). (http://ericps.ed.uiuc.edu/eece/listserv/sac-l.html)

Search Institute is an independent, nonprofit, nonsectarian organization whose mission is to advance the well-being of adolescents and children by generating knowledge and promoting its application through research and evaluation, publications, practical tools, training and technical assistance. (http://www.search-institute.org)

The Tutor/Mentor Connection is a network of volunteers and organizations that works together to build the capacity, availability and quality of tutor/mentor programs in Chicago and around the country. (http://www.tutormentorconnection.org)

QUILT: Quality in Linking Together: Early Education Partnership is a national training and technical assistance project funded by the federal Head Start and Child Care Bureaus. Its purpose is to support full-day, full-year partnerships among child care, Head Start, pre-kindergarten, and other early education programs at the local, state, tribal, territorial, and regional levels. (http://www.quilt.org)

Financing and Sustainability

The 21st Century Community Learning Centers (21st CCLC) program provides grants to rural and inner-city public schools working in partnership with community based organizations to address the educational needs of its community during after-school, weekend, and summer hours. (http://www.ed.gov/21stcclc)

The Finance Project is a national initiative to improve the effectiveness, efficiency, and equity of public and private sector financing for education, out-of-school time, and community development. (http://www.financeproject.org)

The Bill & Melinda Gates Foundation places a major focus on helping to improve people's lives through health and learning. It invests in partnerships with individuals and organizations that bring experience, expertise and commitment to their own efforts to help people through better health and learning. In the Pacific Northwest, the Foundation supports a broad range of projects and programs, with a special emphasis on vulnerable children and their families. (http://www.gtf.org)

Carnegie Corporation of New York' s mission is to promote the advancement and diffusion of knowledge and understanding. One of Carnegie's program priorities is education where emphasis is placed on learning and building infrastructure in Early Childhood Education, Urban School Reform and Higher Education. (http://www.carnegie.org)

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Charles Stewart Mott Foundation has pledged up to $55 million in support of a five-year, $1-billion federal proposal to expand before- and after-school programs for children through the 21st Century Community Learning Centers program. (http://www.mott.org) and (http://www.ed.gov/21stcclc)

Coalition of Community Foundations for Youth (CCFY) is a network of over 175 community foundations in communities across the United States dedicated to securing improved conditions for children, youth and families. (http://www.ccfy.org)

David and Lucile Packard Foundation provides funds to non-profit organizations, primarily in California, in a broad spectrum of program areas including a focus on children, families, and communities. (http://www.packard.org)

Ford Foundation's goals are to strengthen democratic values, reduce poverty and injustice, promote international cooperation, and advance human achievement. (http://www.fordfound.org)

Hewlett Foundation's mission is to promote the well-being of mankind by supporting selected activities of a charitable nature, as well as organizations or institutions engaged in such activities. (http://www.hewlett.org)

MacArthur Foundation is a private, independent grantmaking institution dedicated to helping groups and individuals foster lasting improvement in the human condition. The Foundation pursues this mission by supporting research, policy development, dissemination, education and training, and practice. (http://www.macfdn.org)

Nellie Mae Education Foundation is New England's largest public charity dedicated exclusively to improving academic achievement for the region's under-served communities. It provides grants and technical assistance to programs that concentrate on academic enrichment, college planning, advising, preparation, and retention support for low-income, under-served students in grades 5 through 14, and adult learners. (http://www.nmefdn.org)

Robert Wood Johnson Foundation is the largest US foundation devoted to improving the health and health care of all Americans. (http://www.rwjf.org)

Spencer Foundation was established as an educational publishing firm. The foundation is intended to investigate ways in which education, broadly conceived, can be improved around the world. (http://www.spencer.org)

Wallace-Reader's Digest Funds' mission is to improve the quality of educational and career development opportunities for all school-age youth, especially young people growing up in low-income communities. (http://www.wallacefunds.org)

W.K. Kellogg Foundation seeks to help people help themselves through the practical application of knowledge and resources to improve their quality of life and that of future generations. Program priorities include: Engaged Youth; Healthy, Just, and Sustainable Communities; Connected Communities and Institutions; and Civic Participation. (http://www.wkkf.org)

William T. Grant Foundation's goal is to help create a society that values young people and enables them to reach their full potential. The Foundation supports three new programs of research that focus on Youth Development, Systems Affecting Youth, and the Public's View of Youth. The Foundation is especially interested in interdisciplinary research, including policy analyses and strategic communications research. (http://www.fdncenter.org/grantmaker/wtgrant)

Public Awareness and Support:

Afterschool Alliance is an alliance of public, private, and nonprofit groups committed to raising awareness and expanding resources for after-school programs. Initiated and currently coordinated by the C.S. Mott Foundation, the Alliance grew out of a partnership between the Foundation and the U.S. Department of Education. (http://www.afterschoolalliance.org)

Center for Law and Social Policy (CLASP) is a national non-profit organization with expertise in both law and policy affecting the poor. Through education, policy research, and advocacy, CLASP seeks to improve the economic security of low-income families with children and secure access for low-income persons to our civil justice system. (http://www.clasp.org)

Children Now, recognized nationally for its policy expertise and up-to-date information on the status of children, is a nonpartisan, independent voice for children which works to translate the nation's commitment to children and families into action. (http://childrennow.org)

Children's Defense Fund works to educate the nation about the needs of children and encourage preventive investment in children. In addition to fantastic projects and publications, the Children's Defense Fund Update E-mail Network is available to child advocates, policymakers, community leaders, service providers, religious leaders, and others interested in receiving regular updates and information on children's issues via e-mail. (http://www.childrensdefense.org)

Child Care Partnership Project Web site is designed to provide practical information on creating and maintaining public-private partnerships to increase and improve child care in states and communities throughout the country. It draws from the experiences of successful partnerships at the national, state, and local levels to provide

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tools and materials for existing and future initiatives.
(http://www.nccic.org/ccpartnerships/home.htm)

Do Something is a nationwide network of young people who know they can make a difference in their communities and take action to change the world around them. As part of Do Something, young people are asked what they want to do to make things better and then given the resources and support to bring their unique vision to life.
(http://www.dosomething.org)

Fight Crime Invest in Kids is a national anti-crime and advocacy organization led by police chiefs, prosecutors, and crime survivors that conducts and interprets research on how to keep children from becoming criminals. (http://www.fightcrime.org)

I Am Your Child is a national public awareness and engagement campaign to make early childhood development a top priority for our nation.
(http://www.iamyourchild.org)

Keeping Kids on Track Campaign seeks to expand public awareness of the critical need for out-of-school time programs, and to increase the public and private support for those programs.
(http://www.kkot.org)

New England Workforce Partners is a joint endeavor by the six New England states (CT, ME, MA, NH, RI, VT) to address the difficulty of attracting and retaining qualified staff to care for children. NEW Partners share experiences, knowledge, research, and data to collectively tackle this issue. NEW Partners will create a model for regional data collection and analysis that can be used to better inform policy makers, providers, parents, and researchers—ultimately improving the quality of care young children receive.
(http://www.muskie.usm.maine.edu/newpartners)

Stand For Children is a national organization helping grassroots children's activists build Children's Action Teams, which improve children's lives through successful policy change, awareness-raising, and service initiatives.
(http://www.childrensdefense.org/stand.html)

USA Child Care unites providers as a leading force in the future direction and accessibility of quality, affordable child care for low and moderate-income families; represents and works with active statewide organizations of providers across the country to ensure they are informed and engaged; and is an active advocate that provides expertise to legislators and policy makers about how to develop a system of high-quality child care. (http://www.usachildcare.org)

Professional Development

The Center for Child Care Workforce is a nonprofit, research, education, and advocacy organization committed to improving child care quality by upgrading the compensation, working conditions and training of child care teachers and family child care providers. (http://www.ccw.org)

Concordia College offers a B.A. Degree with a Major in School-Age Care, and a Master's in Education with an Emphasis on School-Age Care, and the Graduate Certificate in School-Age Care Leadership.
(http://www.cshs.csp.edu)

National Association of Child Care Professionals' goal is to improve, enhance and strengthen the credibility of the people who lead the child care industry by providing membership services and benefits.
(http://www.naccp.org)

National Association of Child Care Resource and Referral Agencies (NACCRRA) is a nonprofit organization dedicated to providing the most up-to-date and useful information to parents seeking child care, child care professionals, NACCRRA members, and child care advocates.
(http://www.naccrra.net/default.htm)

National Association for Family Child Care (NAFCC) works to provide technical assistance to family child care associations. This assistance is provided through developing leadership and professionalism, addressing issues of diversity, and by promoting quality and professionalism through NAFCC's Family Child Care Accreditation.
(http://www.nafcc.org)

Wheelock Institute for Leadership and Career Initiatives was founded to improve the quality of early care and education for children by creating a viable career development system for early childhood practitioners and promoting the definition of early care and education both as a professional field and as a field of study.
(http://institute.wheelock.edu)

Education Links

America Reads Challenge calls on all Americans to support teachers and help ensure that every American child can read well and independently by the end of third grade. America Reads offers training guides for tutors, tips for parents, and information on reading initiatives across the country.
(http://www.ed.gov/inits/americareads/index.html)

Educational Resources Information Center (ERIC) is a national information system designed to provide users with ready access to an extensive body of education-related literature. The ERIC database, the world's largest source of education information, contains nearly a million abstracts of documents and journal articles on education research and practice. (http://www.eric.ed.gov/)

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National Association of Elementary School Principals (NAESP) is dedicated to assuring that every American boy and girl receive the world's best elementary and middle school education. (http://www.naesp.org)

National Center for Community Education promotes community education by providing leadership training to people who are interested in community schools and 21St CCLC grant recipients, as well as leadership training to further the development and skills of those implementing community education. (http://www.nccenet.org)

National Council for Accreditation of Teacher Education (NCATE) is the teaching profession's mechanism to help establish high quality teacher preparation. Through the process of professional accreditation of schools, colleges, and departments of education, NCATE works to make a difference in the quality of teaching and teacher preparation today, tomorrow, and for the next century. (http://www.ncate.org)

National Education Association (NEA) is America's oldest and largest organization committed to advancing the cause of public education. (http://www.nea.org)

National Middle School Association serves as a voice for professionals, parents, and others interested in the education and developmental needs of young adolescents. (http://www.nmsa.org)

Federal Resources

Administration for Children and Families (ACF) is responsible for federal programs which promote the economic and social well-being of families, children, individuals, and communities. (http://www.acf.dhhs.gov)

Afterschool.gov is a clearinghouse of federal resources that support out-of-school time providers, programs, and advocates. It provides information to help parents understand the issues that face kids and teens and on how to fund, start, and operate an after-school program. This site offers one-stop access to government resources that support after-school programs. (http://www.afterschool.gov)

The Child Care Bureau makes grants to States and Tribes to assist low income families with child care. The Bureau has initiated a variety of activities to improve the quality, availability, and affordability of child care across the country including the National Child Care Information Center. The Child Care Bureau administers the Child Care and Development Block Grant (CCDBG) program and provides technical assistance to the nation on a variety of topics related to child care. (http://www.acf.dhhs.gov/programs/ccb),(http://www.nccic.org)

Forum on Child and Family Statistics/ChildStats.gov offers easy access to federal and state statistics and reports on children and their families, including: population and family characteristics, economic security, health, behavior and social environment, and education. (http://www.childstats.gov)

U.S. Census Bureau offers a searchable database of Census 2000 information. (http://www.census.gov)

U.S. Department of Housing and Urban Development (HUD) supports the "Ounce of Prevention Program" (OPP) which helps local organizations in and around Federal Empowerment Zones and Enterprise Communities (EZ/ECs) link their public safety, community planning, and youth development efforts to similar ones in surrounding neighborhoods. (http://www.hud.gov)

U.S. Department of Education (DOE) works to ensure equal access to education and to promote educational excellence for all Americans. DOE administers the 21st Century Community Learning Centers Program. (http://www.ed.gov)

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Office of Educational Research and Improvement (OERI)
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Educational Resources Information Center (ERIC)

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